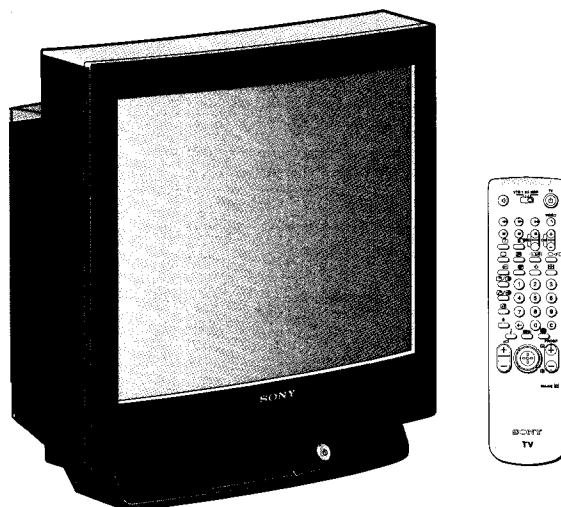


SERVICE MANUAL

BE-3D CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-25F1A	RM-862	Italian	SCC-K05A-A	KV-25F1E	RM-862	Spanish	SCC-K06A-A
KV-25F1B	RM-862	French	SCC-K01A-A	KV-25F1U	RM-862	UK	SCC-K04A-A
KV-25F1D	RM-862	AEP	SCC-K07A-A				



TRINITRON® COLOR TV
SONY®



ITEM	MODEL	Television System	Channel Coverage	Colour System
Italian	B/G/H	VHF: E2-E12, S1-S20, A-H, H1,H2 UHF: E21-E69		PAL NTSC3.58/4.43 (video input only)
French	B/G/H, D/K, L, I	L SECAM VHF: F2-F10 UHF: F21-F69 TV CABLE TV (1) VHF: B-Q UHF: S21-S44 PAL B/G/H VHF: E2-E12 UHF: E21-E69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 PAL I UHF: B21-B69 D/K VHF: R01-R20 UHF: B21-B69		PAL, SECAM NTSC3.58/4.43 (video input only)
AEP	B/G/H, D/K	B/G/H VHF: E2-E12 UHF: S1-S20 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 D/K VHF: R01-R20 UHF: B21-B69		PAL, SECAM NTSC3.58/4.43 (video input only)
Spanish	B/G/H, D/K	PAL B/G/H VHF: E2-E12 UHF: E21-E69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 D/K VHF: R01-R20 UHF: B21-B69		PAL, SECAM NTSC3.58/4.43 (video input only)
UK	I	UHF: U21-U69		PAL NTSC3.58/4.43 (video input only)

MODEL	25F1A	25F1B	25F1D	25F1E	25F1U
Power Consumption	75W	93W	93W	93W	146W

SPECIFICATIONS

Picture Tube Super Trinitron
Approx. 63 cm (25 inches)
(Approx. 59 cm picture measured
diagonally)
110° -deflection

[FRONT]

- 3 , Video input - phono jack
- 3 , Audio inputs - phono jacks
- 3 , S video input - 4 pin DIN
- 🎧 Stereo minijack - headphone jack

Rear/Front Terminals

[REAR]

- 1 21-pin Euro connector (CENELEC standard)
 - Inputs for audio / video signals
 - Inputs for RGB
 - Outputs for TV audio and video signals
- 2/ → 2, 21-pin Euro connector (CENELEC standard)
 - Inputs for audio / video signals
 - Inputs for S video
 - Outputs for TV audio and video signals (selectable)

Sound output

- Left/Right 2x15W (RMS)
2x30W (music power)
- Dimensions 586x551x480 mm approx.
- Weight Approx. 32.0 kg
- Supplied accessories RM-862 Remote Commander (1)
Batteries R6 (2)
- Other features Fastext,
NICAM (KV-25F1B/25F1E/25F1U)


[RM-862]

Remote control system	Infrared control
Power requirements	3V dc (2 batteries) R6 (size AA)
Dimensions	Approx. 210x56x24 mm (w/h/d)
Weight	Approx. 110g (Not including battery)

Design and specifications are subject to change without notice.

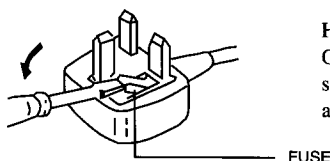
Model name Item	KV-25F1A	KV-25F1B	KV-25F1D	KV-25F1E	KV-25F1U
Scart 1	ON	ON	ON	ON	ON
Scart 2	ON	ON	ON	ON	ON
Front in (3)	ON	ON	ON	ON	ON
RGB Priority	ON	ON	OFF	OFF	OFF
Rotation Coil	OFF	OFF	OFF	OFF	OFF
VM Set	OFF	OFF	OFF	OFF	OFF
AKB in 16:9 mode	ON	ON	ON	ON	ON
TXT	ON	ON	ON	ON	ON
FLOF	ON	ON	ON	ON	ON
TOP	ON	ON	ON	ON	ON
NICAM	OFF	ON	OFF	ON	ON
Norm B/G/H	ON	ON	ON	ON	OFF
Norm I	OFF	ON	OFF	OFF	ON
Norm D/K	OFF	ON	ON	ON	OFF
Norm IRL	OFF	OFF	OFF	OFF	OFF
Norm L	OFF	ON	OFF	OFF	OFF
Language Preset	Italian	French	German	Spanish	English

WARNING (KV-25F1U only)




The flexible mains lead is supplied connected to a **B.S. 1363** fused plug having a fuse of **5 AMP** capacity. Should the fuse need to be replaced, use a **5 AMP FUSE** approved by **ASTA** to **BS 1362**, ie one that carries the  mark.

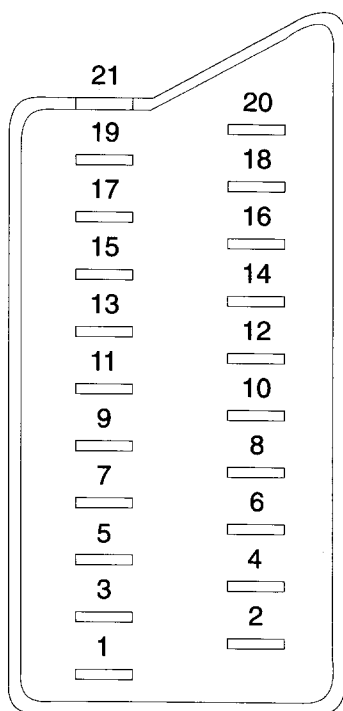
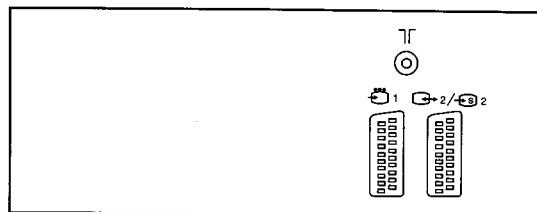
IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR YOUR SOCKET OUTLETS IN YOUR HOME. IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED. THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE SOCKET OUTLET.

When an alternative type of plug is used it should be fitted with a **5 AMP FUSE**, otherwise the circuit should be protected by a **5 AMP FUSE** at the distribution board.



How to replace the fuse.
Open the fuse compartment with the screwdriver blade and replace the fuse.

21 pin connector ( 1,  2 /  2)



Pin No.	1	2	4	Signal	Signal Level
1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Audio output B (Right)	Standard level : 0.5V rms Output impedance : Less than 1k ohms*
2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Audio input B (Right)	Standard level : 0.5V rms Output impedance : More than 10k ohms*
3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Audio output A (Left)	Standard level : 0.5V rms Output impedance : Less than 1k ohm*
4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (Audio)	
5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (Blue)	
6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Audio input A (Left)	Standard level : 0.5V rms Output impedance : Less than 10k ohm*
7	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Blue input	0.7 ± 3dB, 75 ohms, positive
8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Function select (AV control)	High state (9.5 - 12V) : Part mode Low state (0 - 2V) : TV mode Input impedance : More than 10k ohms Input capacitance : Less than 2nF
9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (Green)	
10	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Open	
11	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Green	
12	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Open	
13	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (Red)	
14	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (Blanking)	
15	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Red input	0.7 ± 3dB, 75 ohms, positive
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	(S signal) chroma input	0.7 ± 3dB, 75 ohms, positive
16	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Blanking input (Ys signal)	High state (1 - 3V) Low state (0 - 0.4V) Input impedance : 75 ohms
17	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (Video output)	
18	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (Video input)	
19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Video output	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
20	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Video input	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Video input Y (S signal)	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
21	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Common ground (plug, shield)	

☐ Connected ☒ Not Connected (Open) * at 20Hz - 20kHz

Pin No.	Signal	Signal Level
1	Ground	
2	Ground	
3	Y (S signal) input	1V ± 3dB 75 ohm, positive Sync. 0.3V -3 + 10dB
4	C (S signal) input	0.3V ± 3dB 75ohm, positive Sync.

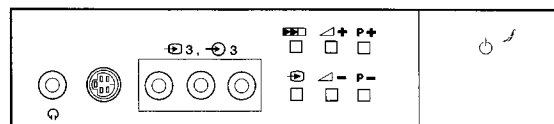


TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>
1. GENERAL			5. DIAGRAMS		
	Overview	7	5-1.	Block Diagrams	33
	Getting Started	8	5-2.	Circuit Boards Location	38
	TV Operation	9	5-3.	Schematic Diagrams and Printed Wiring Boards	38
	Advanced Operations	10		*D Board	43
	Teletext	16		*A Board	48
	Optional Equipment	17		*C Board	58
	For Your Information	19		*IF Block [VIF (AEP), VIF (UK)]	61
				*IF Block [VIF (FR)]	61
				IC Blocks	63
2. DISASSEMBLY			5-4.	Semiconductors	65
2-1.	Rear Cover Removal	20	6. EXPLODED VIEWS		
2-2.	Chassis Assy Removal	20	6-1.	Chassis	67
2-3-1.	Service Position (1)	20	6-2.	Picture Tube	68
2-3-2.	Service Position (2)	20			
2-4.	Wire Dressing	21	7. ELECTRICAL PARTS LIST		69
2-5.	A Board Removal	21			
2-6.	Extension Board	21			
2-7.	Picture Tube Removal	22			
3. SET-UP ADJUSTMENTS					
3-1.	Beam Landing	23			
3-2.	Convergence	24			
3-3.	White Balance	26			
4. CIRCUIT ADJUSTMENTS					
4-1.	Electrical Adjustments	27			
4-2.	Test Mode 2 :	30			
4-3.	BE-3D Self Diagnostic Software	31			

CAUTION


SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.

THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND, IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.


ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION !!

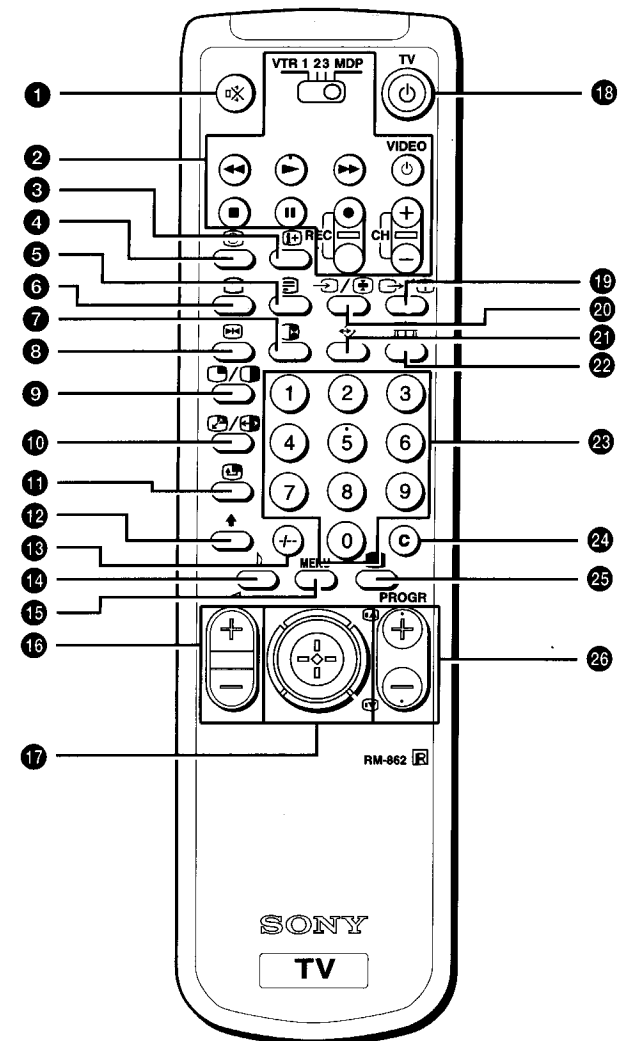
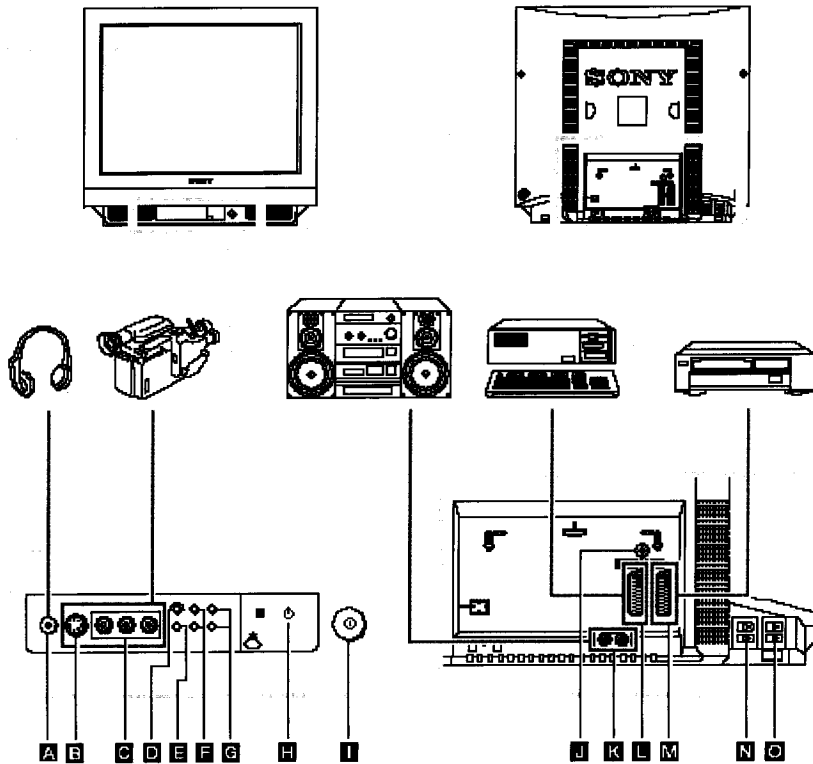
AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE  SUR LES VUES EXPLODÉES ET LES LISTES DE PIÈCES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1 GENERAL



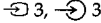









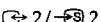


The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.






















Overview

This section briefly describes the controls and the buttons on the TV set and on the Remote Commander. Please open the flap at the front of the Instruction manual for illustrations of the TV set and the Remote Commander. Letters in boxes refer to the buttons on the TV set, numbers in circles to the buttons on the Remote Commander. For more information, refer to the page numbers given next to each description.

TV buttons and Terminals

Reference and Symbol	Name	Refer to Page
Front of the set		
A 	Headphones jack	4
B 	S video input jack	33
C 	Audio/video input jacks	33
D 	Automatic Preset button	12
E 	Input mode button	14
F 	Volume control	13
G 	Programme button	13
H 	Standby mode indicator	13
I 	Main power switch	13
Rear of the set		
J 	Aerial socket	11
K 	Audio phono jacks	33
L 	21 pin Euro connector	33
M 	21 pin Euro connector	33
N 	Left/Right speaker terminals (KV-25F2U, 29F2U only)	10
O 	Surround speaker terminals (KV-25F2U, 29F2U only)	10



Remote Commander Operation

Reference and Symbol	Name	Refer to Page
1 	Muting on/off button	13
2 	VCR operation	36
VTR123MDP	Video equipment selector	
	Video equipment operation buttons	
VIDEO 	VIDEO 	
3 	On-screen display button	13
4 	Time display button	13
5 	Teletext button	14
6 	TV power on/TV mode button	13, 14
7 8 9 10 11 12	No function on this set	-
13 	Double digit entering button	13
14 	Sound mode button	20
15 MENU	Menu on/off button	15
16 	Volume control button	13
17 	Joystick for menu selection. Press to confirm selection (OK function)	15
18 	TV standby button	13
19 	Teletext: reveal button	31
20 	Input mode button	14, 31
	Teletext: Freezing the subpage	
21 	Teletext: Favourite pages button	32
22 	Button to change screen format	13
23 1, 2, ..., 9, 0	Number buttons	13
24 C	Direct channel button	14
25 	Picture mode button	20
26 PROGR +/-	Programme buttons Teletext: Page up/page down buttons	13, 14

Step 2

Connecting the Aerial

(If you connect a VCR, skip to step 3)

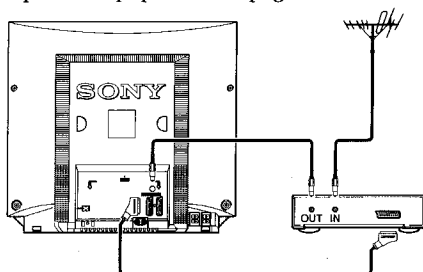
Insert the aerial plug tightly into the aerial socket  . Use a good-quality aerial cable (not supplied), corresponding to the relevant regulations.

Step 3

Connecting a VCR

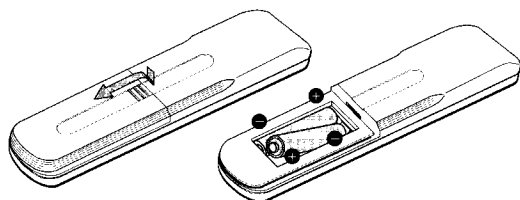
We recommend that you tune in the VCR signal to programme number "0". For details, see "Presetting Channels Manually" on page 17.

See "Connecting Optional Equipment" on page 33 for more information.



Step 4

Inserting the Batteries Into the Remote Commander



Respect your environment! Dispose of used batteries in an environmentally friendly way.

Step 5

Presetting Channels Automatically

With this function, the TV can automatically search and store up to 100 different channel numbers.



If you prefer manual presetting, refer to "Presetting Channels Manually" on page 17.

1

Plug into mains.

Press the power switch  on the TV set.

2

Press and hold the button   on the TV set until the automatic menu is displayed and the search starts.

After all available channels are stored, the normal TV picture is shown.

Note: Channels are automatically stored as follows:

Programme 1	BBC1
Programme 2	BBC2
Programme 3	ITV
Programme 4	CH4 or S4C

TV Operation

This section explains functions used whilst watching TV. Most operations are carried out using the remote commander (numbers in circles). All basic functions are also available on the TV set (letters in boxes). Open the flap at the front of the Instruction Manual to see the illustrations of the Remote Commander and the TV set.

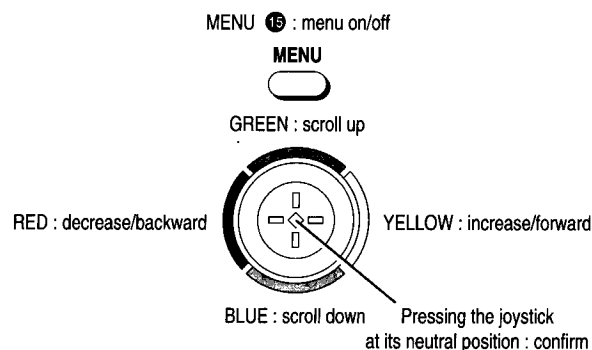
To	Press
Switch on	U I on TV
Switch off temporarily	⏻ 18 TV is now in standby mode and ⏻ H indicator on TV lights up.
Switch on from standby mode	□ 6, PROGR +/- 26 G or any number button 23
Switch off completely	⓪ 1 on TV To save energy, switch off your TV completely when TV is not in use.
Select programmes	PROGR +/- 26 G or number buttons 23 For double digit number, press -/- 13 then the number e.g. For 23, press -/- 13 then 2 and 3.
Display on screen indications	i+ 3. Press again to make the indications disappear.
Adjust the volume	△ 16 F + or -
Mute the sound	⌂ 1. Press again to restore the sound.
Display the time (only available when teletext is broadcast)	⌚ 4. Press again to make the display disappear.
View programmes in 16:9 mode	⌘ 22. Press again to return to 4:3 mode.

TV Operation (continued)

To	Press
Tune in a channel temporarily	C 24. The indication "C" appears.
View video input picture (see page 34 for detailed information)	↺ 20 E repeatedly until the desired video input appears. Press □ 6 to restore the TV picture.
View teletext (see page 31 for detailed information)	
Switch on	≡ 5
Select a page	three number buttons 23 or ⏮ 26 (for next page) or ⏭ 26 (for previous page).
Use fasttext	Push joystick 17 to select a colour.
Switch off	□ 6

Adjusting and Setting the TV Using the Menu

You can adjust and set various functions on the TV using the following remote commander buttons:

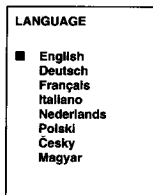


Choosing the Menu Language

This function enables you to change the language of the menu screens.

1 Press power switch ① 1 on the TV. If the standby indicator ④ 4 on the TV is lit, press ⑥ 6 or a number button 23 on the Remote Commander.

2 Press the MENU button 15 on the remote commander.



3 Push to blue or green to select the language you want then push to yellow.

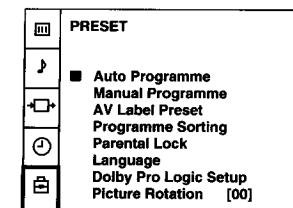
4 Press the MENU button 15 to restore the normal TV picture.

Presetting Channels Automatically

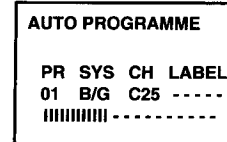
You may have already preset the channels automatically by using the method shown on page 12. You can also preset channels automatically by using the remote commander as follows:

1 Press the MENU button 15.

2 Push joystick 17 to blue or green to select the symbol ④ 4 on the menu screen then push to yellow.



3 Push to blue or green to select 'Auto Programme'.



4 Push to yellow and hold until the automatic menu is displayed and the search starts.
After all available channels have been preset, the normal TV picture is shown.

Note: Channels are automatically stored as follows:

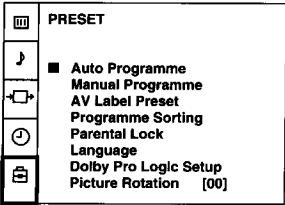
Programme 1	BBC1
Programme 2	BBC2
Programme 3	ITV
Programme 4	CH4 or S4C

Presetting Channels Manually

This function enables you to preset channels one by one to different programme numbers. This is also convenient for allocating programme numbers to various video input sources.

1 Press the MENU button 15.

2 Push joystick 17 to blue or green to select the symbol 18 on the menu screen then push to yellow.



3 Push to blue or green to select 'Manual Programme' then push to yellow.

MANUAL PROGRAMME PRESET				
	SYS	CHAN	LABEL	AFT
1	B/G	C 1	----	ON
2	B/G	C 4	----	ON
3	B/G	C12	----	ON
4	B/G	C22	----	ON
5	B/G	C33	----	ON
6	B/G	C41	----	ON
7	B/G	C17	----	ON
8	B/G	C32	----	ON

4 Push to blue or green to select on which programme number you want to preset a channel then push to yellow.

5 Push to blue or green to select the TV broadcast system (I) or a video input source (AV1, AV2,...) then push to yellow.

6 Select the first number digit of 'CHAN' then the second number digit of 'CHAN' with the number buttons 23 on the remote commander
or
Push joystick 17 to blue or green to search for the next available channel number.

7 If you want to store the channel number, go to step 8. If not, select a new channel number using the number buttons 23 on the remote commander or push to blue or green to resume the search.

8 Press the joystick 17.

9 Repeat steps 4 to 8 to preset other channels.

10 Press the MENU button 15 to restore the normal TV picture.

Adjusting the Picture and Sound

Although the picture and sound are adjusted at the factory, you can adjust them to suit your own taste.

1 Press the MENU button 15.

2 Push joystick 17 to blue or green to select [] for picture control or 18 for sound control then push to yellow.

PICTURE CONTROL		SOUND CONTROL	
Picture Mode	--> []	Sound Mode	--> [User]
Picture	-----	Balance	-----
Reset		Reset	
Auto Picture	[ON]	Bass Extension	[OFF]
		Surround Mode	--> [Dolby]
		Dual Sound	[A]
		Volume Offset	[00]
		[HP] Volume	-----
		[HP] Dual Sound	[A]

3 Push to blue or green to select the desired item then push to yellow.

4 Push to red or yellow to alter the item then press the joystick 17. For the effect of each control, see the following tables.

5 Repeat steps 3 and 4 to adjust the other items.

6 Press the MENU button 15 to restore the normal TV picture.

PICTURE CONTROL	Effect
-----------------	--------

Picture Mode	User —> Game —> Movie —> Sports —> Live In 'User' mode, you can preset Brightness, Colour, Sharpness and Hue (NTSC signals only) as follows: 1 Push joystick 17 to blue or green to select the desired item then push to yellow. 2 Push to red or yellow to adjust then press the joystick 17. 3 Push to red to return to the PICTURE CONTROL menu.
Contrast	Darker — — Brighter
Reset	Resets picture to the factory preset levels.
Auto Picture	All the picture levels automatically change according to the surrounding lighting level. (Auto Picture Control)
Format	Wide screen effect (16:9)

Adjusting the Picture and Sound (continued)

SOUND CONTROL	Effect
---------------	--------

Sound Mode	User —> Rock —> Jazz —> Pop In 'User' mode, you can preset Treble and Bass as follows. 1 Push joystick 17 to blue or green to select the item then push to yellow. 2 Push to red or yellow to adjust then press the joystick 17. 3 Push to red to return to the 'SOUND CONTROL' menu.
Balance	Left — — Right
Reset	Resets sound to the factory preset levels. Pro Logic —> Pseudo Stereo —> Spatial —> Club —> Theatre —> Hall —> Church —> Stadium —> Off
Spatial	Acoustic sound effect
Dual Sound	A: Left channel —> B: Right channel —> stereo —> mono
Volume Offset	Presets the volume level for individual programmes. -12 — 0 — +12
Volume	Adjusts the headphone volume.
Dual Sound	Presets the headphone channels. A: Left channel —> B: Right channel —> stereo —> mono

Changing Modes Quickly

You can quickly change the Sound Mode, or the Picture Mode without entering the 'SOUND CONTROL' or the 'PICTURE CONTROL' menu.



- 1 Press 25 for the picture or 14 for the sound.
- 2 Push joystick 17 to blue or green to select the desired mode then push to yellow.
- 3 Press 25 or 14 again to restore the normal TV screen.

Manual Fine-Tuning

Normally, the automatic fine-tuning (AFT) function is operating.

If the picture is distorted however, you can manually fine-tune the TV to obtain a better picture reception.

1 Press the MENU button .

2 Push joystick  to blue or green to select the symbol  on the menu screen then push to yellow.


3 Push to blue or green to select 'Manual Programme' then push to yellow.

MANUAL PROGRAMME PRESET				
	SYS	CHAN	LABEL	AFT
1	B/G	C 1	----	ON
2	B/G	C 4	----	ON
3	B/G	C12	----	ON
■ 4	B/G	C22	----	ON
5	B/G	C33	----	ON
6	B/G	C41	----	ON
7	B/G	C17	----	ON
8	B/G	C32	----	ON


4 Push to blue or green to select the programme number which corresponds to the channel you want to manually fine-tune.

5 Push to yellow repeatedly until the AFT position changes colour..

6 Push to blue or green to change the frequency of the channel from -15 to +15.


7 Press the joystick .



8 Repeat steps 4 to 7 to fine-tune other channels.

9 Press the MENU button  to restore the normal TV picture.









Sorting Programme Positions

This function enables you to move channels to different programme numbers.

1 Press the MENU button .

2 Push joystick  to blue or green to select the symbol  on the menu screen then push to yellow.

3 Push to blue or green to select 'Programme Sorting' then push to yellow .


PRESET	
	■ Auto Programme
	Manual Programme
	AV Label Preset
	Programme Sorting
	Parental Lock
	Language
	Dolby Pro Logic Setup
	Picture Rotation [00]

4 Push to blue or green to select the channel you want to move to another programme number then push to yellow.

PROGRAMME SORTING			
PR	SYS	CHAN	LABEL
■ 1	B/G	C23	BBC - 1
2	B/G	C26	RTL - -
3	B/G	C29	VHS - 1
4	B/G	C31	ZDF - -
5	B/G	C44	ITV - -
6	B/G	C14	SKY - -
7	B/G	C15	SAT - 1
8	B/G	C16	BBC - 2


5 Push to blue or green to select the programme number to which you want to move the channel selected in step 4 then push to yellow.

6 Repeat steps 4 to 5 if you wish to move other channels to different programme numbers.

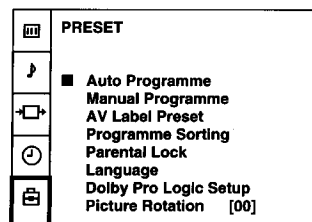
7 Press the MENU button  to restore the normal TV picture.


Using Parental Lock

This function enables you to prevent undesirable broadcasts from appearing on the screen. We suggest you use this function to prevent children from watching programmes which you consider unsuitable.

- 1 Press the MENU button **15**.
- 2 Push joystick **17** to blue or green to select the symbol  on the menu screen then push to yellow.

- 3 Push to blue or green to select 'Parental Lock' then push to yellow.



- 4 Push to blue or green to select the channel you want to block then push to yellow.
The symbol  appears before the programme number to indicate that this channel is now blocked.


PARENTAL LOCK			
PR	SYS	CHAN	LABEL
■ 1	B/G	C23	BBC - 1
2	B/G	C26	RTL - -
3	B/G	C29	VHS - 1
4	B/G	C31	ZDF - -
5	B/G	C44	ITV - -
6	B/G	C14	SKY - -
7	B/G	C15	SAT - 1
8	B/G	C16	BBC - 2

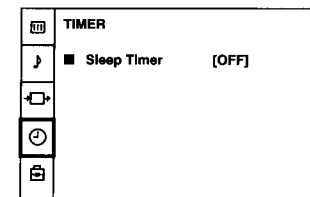
- 5 Repeat step 4 if you wish to block other channels.
- 6 Press the MENU button **15** to restore the normal TV picture.

Note: To unblock, push to yellow after selecting the channel to unblock in the 'Parental Lock' menu.

Using the Sleep Timer

This function enables you to select a time period after which the TV automatically switches into standby mode.

- 1 Press the MENU button **15**.
- 2 Push joystick **17** to blue or green to select the symbol  on the menu screen then push to yellow.



- 3 Push to yellow.
- 4 Push to red or yellow to set time delay and press the joystick **17**.

OFF 0:30 1:00 1:30 3:30 4:00


One minute before the TV switches into standby mode, a message is displayed on the screen.

- 5 Press the MENU button **15** to restore the normal TV picture.

Skiping Programme Positions

This function enables you to skip unused channels when selecting programme numbers with the PROGR+/- buttons. However, you can still watch the skipped channel(s) by using the number buttons.

1 Press the MENU button **15**.

2 Push joystick **17** to blue or green to select the symbol  on the menu screen then push to yellow.

3 Push to blue or green to select 'Manual Programme' then push to yellow.

PRESET
■ Auto Programme
Manual Programme
AV Label Preset
Programme Sorting
Parental Lock
Language
Dolby Pro Logic Setup
Picture Rotation [00]

4 Push to blue or green to select the channel you want to skip then push to yellow.

5 Push to blue or green until '---' appears in the 'SYS' position.

MANUAL PROGRAMME PRESET				
SYS	CHAN	LABEL	AFT	
1 B/G	C 1	----	ON	
2 B/G	C 4	----	ON	
3 B/G	C12	----	ON	
4 B/G	C22	----	ON	
5 B/G	C33	----	ON	
6 B/G	C41	----	ON	
7 B/G	C17	----	ON	
8 B/G	C32	----	ON	

6 Press the joystick **17**.


7 Repeat steps 4 to 6 to skip other channels.

8 Press the MENU button **15** to restore the normal TV picture.

Captioning a Station Name

Names for channels are usually automatically taken from teletext if available. You can however name a channel or an input video source using up to five characters (letters or numbers).

1 Press the MENU button **15**.

2 Push joystick **17** to blue or green to select the symbol  on the menu screen then push to yellow.

3 Push to blue or green to select 'Manual Programme' then push to yellow.

PRESET
■ Auto Programme
Manual Programme
AV Label Preset
Programme Sorting
Parental Lock
Language
Dolby Pro Logic Setup
Picture Rotation [00]

4 Push to blue or green to select the channel you wish to caption then push to yellow repeatedly until the first element of the 'LABEL' position is highlighted.

5 Push to blue or green to select a letter or number and push to yellow (select '-' for a blank). Select other characters in the same way.

MANUAL PROGRAMME PRESET				
SYS	CHAN	LABEL	AFT	
1 B/G	C 1	----	ON	
2 B/G	C 4	----	ON	
3 B/G	C12	----	ON	
4 B/G	C22	A----	ON	
5 B/G	C33	----	ON	
6 B/G	C41	----	ON	
7 B/G	C17	----	ON	
8 B/G	C32	----	ON	

6 After selecting all the characters, press the joystick **17**.



7 Repeat steps 4 to 6 to caption names for other channels.

8 Press the MENU button **15** to restore the normal TV screen.






Teletext

Most TV channels broadcast information via teletext. The index page of the broadcaster (usually page 100) gives you information on how to use the service.
Make sure you use a TV channel with a strong signal, otherwise teletext errors may occur.

Switching Teletext on and off

- 1 Select the channel which carries the teletext service you wish to view.
- 2 Press  5 to display teletext.
If no teletext signal is broadcast, the indication P100 is displayed on a black screen.
- 3 Input three digits for the page number using the number buttons 23.
The page counter searches for the page and after some seconds the page is displayed.
- 4 Press  6 to return to the normal TV picture.


Using Other Teletext Functions

To	Press
Access the next or preceding teletext page	 26 for the next page or  26 for the preceding page
Mix the mode	 5 when in teletext mode. Now the teletext page is superimposed on the TV programme. Press again to return to the normal teletext display.
Freeze a teletext subpage	 20. Press once again to cancel.
Reveal hidden information (eg: answers to a quiz)	 19. Press once again to cancel.


Favourite page system


You can store up to four of your favourite teletext pages per Teletext service. In this way you have quick access to the pages you frequently use.

Storing pages

- 1 Use the number buttons 23 to select the page you would like to store.
- 2 Press  24 twice.
The colour prompts at the bottom of the screen flash.
- 3 Push the joystick 17 to store the selected page.
The page is now stored on this colour.
- Repeat steps 1 to 3 for the other 3 pages.

Displaying the Favourite Pages

- 1 Press  24.
- 2 Push the joystick 17 to the colour on which the desired page is stored.

Make sure you press  24, otherwise the normal Fastext facility operates.

Using Fastext

(only available, if the TV station broadcasts Fastext signals)

With Fastext you can access pages with one key stroke . When Fastext is broadcast, a colour-coded menu appears at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue marks on the Remote Commander.

Push the joystick 17 to the colour mark which corresponds to the colour-coded menu. The page is displayed after some seconds.

Connecting Optional Equipment

There is a wide range of optional equipment you can connect to your TV. Refer to the illustrations on the front flap page of this manual.

Symbol	Acceptable input signals	Available output signals
→ 1 L	Normal audio/video and RGB	Audio/video from TV tuner
→ 2 / → 2 M	Normal audio/video and S video	Audio/video from selected source
→ 3, → 3 B → 3 C	Normal audio/video and S video	No output
→ K	No inputs Audio from selected source.	

About S video input

Video signals may be separated into Y (luminance) and C (chrominance) signals. Separating the two signals prevents interference and thus improves the picture quality.

Notes on connections:

If the picture or sound is distorted, move the VCR away from the TV.

When connecting a monaural VCR, connect only the white jack to both the TV and VCR.

Selecting Input and Output Signals

This section explains how to view the video input picture and how to select the output signal. You can use direct access buttons → 20 **E** to select the input or the menu system to select input and output.

Selecting With Direct Access Buttons

Press → 20 **E** repeatedly.

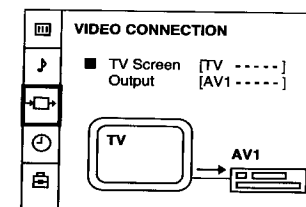
Press → 6 to restore the normal TV picture.

Symbol on the screen	Input Signal
→ 1	Audio/video through Euro AV connector L
→ 1	RGB through Euro AV connector L
→ 2	Audio/video through Euro AV connector M
→ 2	S video through Euro AV connector M
→ 3	Audio/video through the phono jacks C
→ 3	S video through the phono jacks B

Selecting With the Video Connection Menu

1 Press the MENU button → 15.

2 Push joystick → 17 to blue or green to select → 16 for "Video Connection" then push to yellow.



3 Push to blue or green to select input or output then push to yellow → 17.

4 Push to blue or green repeatedly to select the desired input or output source then press the joystick → 17.

5 Press the MENU button → 15 to restore the normal TV picture.

Note: If you select 'Auto' for output, the output source automatically becomes the same as the desired input source.

Using AV Label Preset

This function enables you to label the input sources using up to five characters (letters or numbers).

- 1 Press the MENU button 19.
- 2 Push joystick 17 to blue or green to select the symbol 20 on the screen then push to yellow.
- 3 Push to blue or green to select 'AV Label Preset' then push to yellow.
- 4 Push to blue or green to select the desired input source then push to yellow.
- 5 Push to blue or green to select a letter or number then push to yellow (select '-' for a blank).
Select other characters in the same way.
- 6 After selecting all the characters, press the joystick 17.
- 7 Repeat steps 4 to 6 label other input sources.
- 8 Press the MENU button 19 to restore the normal TV screen.

AV LABEL PRESET	
INPUT	LABEL
■ AV1
RGB
AV2
YC2
AV3
YC3

Remote Control of Other Sony Equipment

You can control other Sony remote controlled equipment using the buttons 2 on the Remote Commander.

- 1 Set the VTR 1/2/3 MDP selector according to the equipment
VTR 1: Beta VCR VTR 2: 8mm VCR
VTR 3: VHS VCR MDP: Video Disk Player

- 2 Use the buttons 2 to operate the equipment.

- Notes:**
- If your video equipment has a COMMAND MODE selector, set this selector to the same position as the VTR 1/2/3 MDP selector on the TV Remote Commander
 - If the equipment does not have a certain function, the corresponding button on the Remote Commander does not work.

Troubleshooting

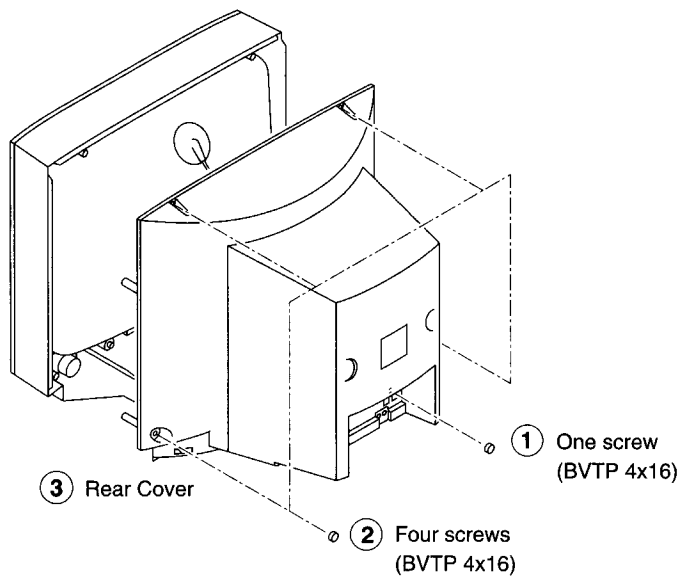
Here are some simple solutions to the problems which affect the picture and sound.

Problem	Solution
No picture (screen is dark), no sound	<ul style="list-style-type: none">• Plug the TV in.• Press ① II on the TV. (If ① indicator H is on, press ① 6 or a programme number 23 on the Remote Commander.)• Check the aerial connection.• Check if the selected video source is on.• Turn the TV off for 3 or 4 seconds then turn it on again using ① II.
Poor or no picture (screen is dark), but good sound	<ul style="list-style-type: none">• Press MENU 15 to enter the 'PICTURE CONTROL' menu and adjust 'Picture', 'Brightness' and 'Colour'.
Poor picture quality when watching an RGB video source.	<ul style="list-style-type: none">• Press ↶ 20 E repeatedly to select ↶.
Good picture but no sound	<ul style="list-style-type: none">• Press △ + 16 F.• If ⦿ is displayed on the screen, press ⦿ 1.
No colour for colour programmes	<ul style="list-style-type: none">• Press MENU 15 to enter the 'PICTURE CONTROL' menu, select 'Reset' then press the joystick 17.
Remote Commander does not function.	<ul style="list-style-type: none">• Replace the batteries

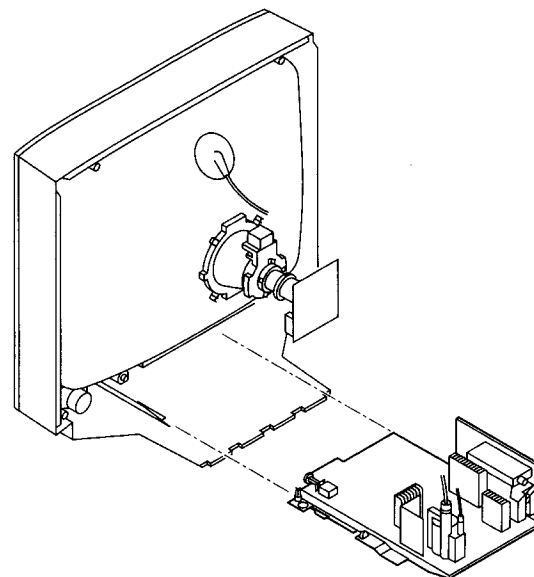
If you continue to have problems, have your TV serviced by qualified personnel.
Never open the casing yourself.

SECTION 2 DISASSEMBLY

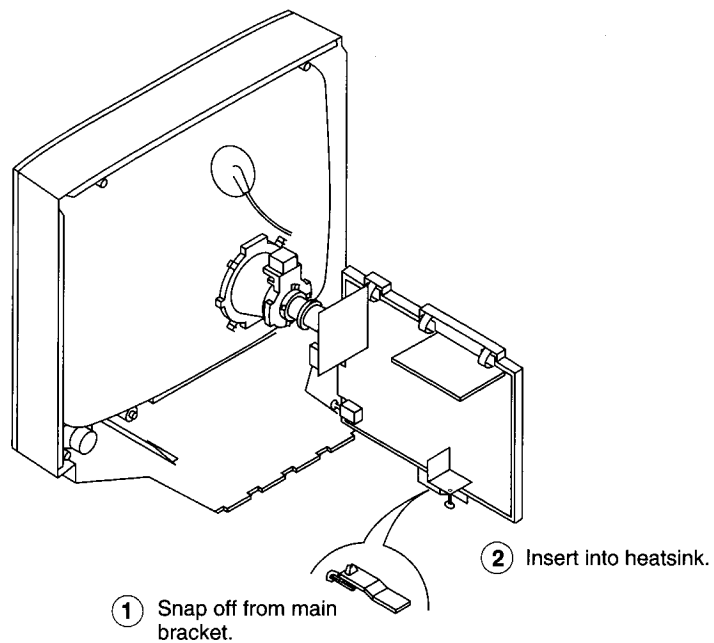
2-1. REAR COVER REMOVAL



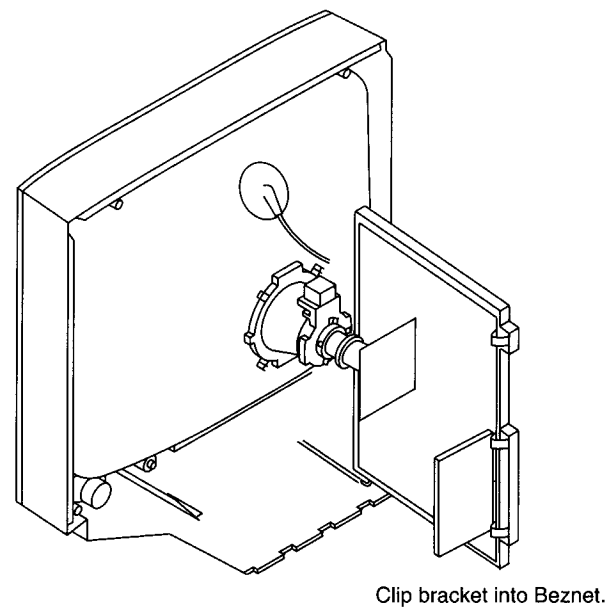
2-2. CHASSIS ASSY REMOVAL



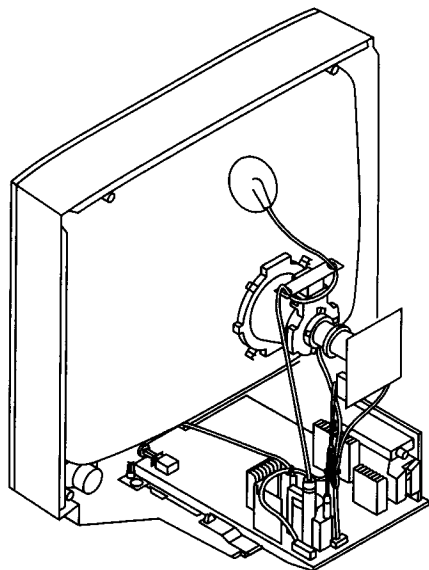
2-3-1. SERVICE POSITION (1)



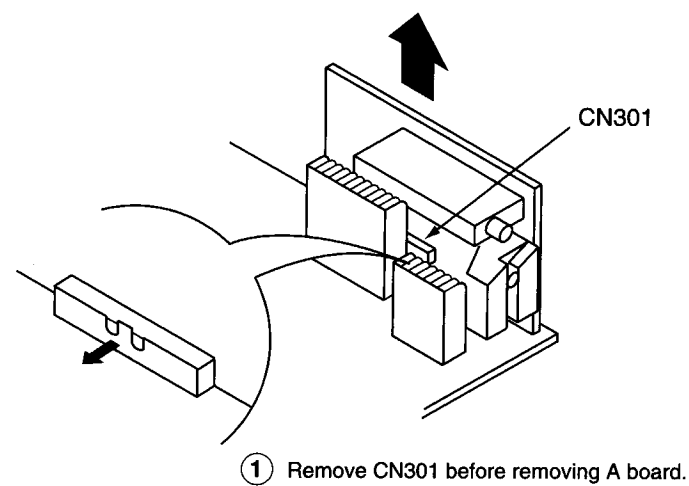
2-3-2. SERVICE POSITION (2)



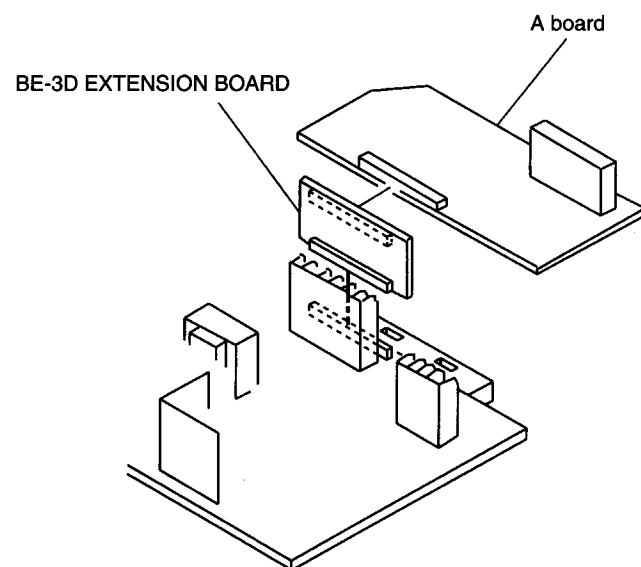
2-4. WIRE DRESSING



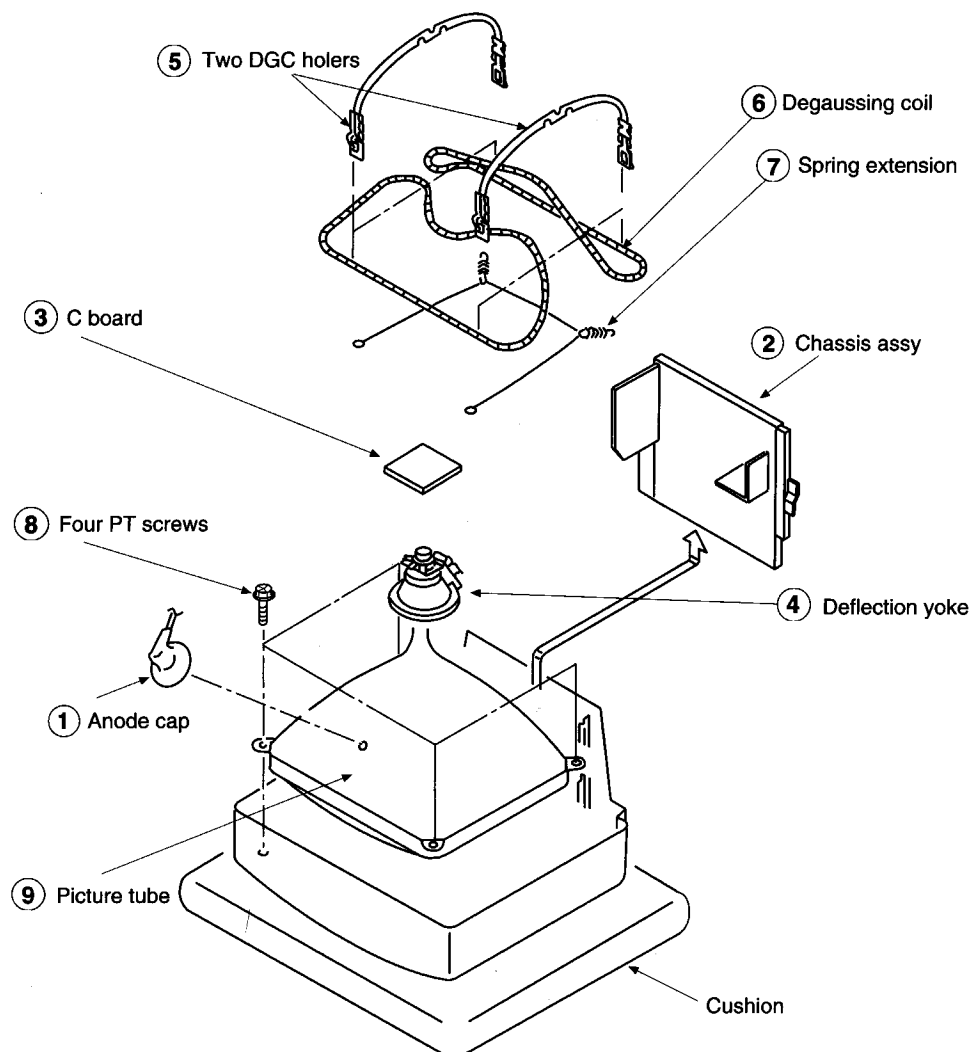
2-5. A BOARD REMOVAL



2-6. EXTENSION BOARD



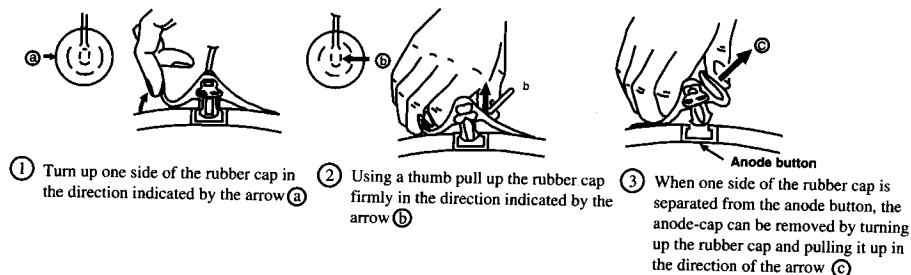
2-7. PICTURE TUBE REMOVAL



• REMOVAL OF ANODE-CAP

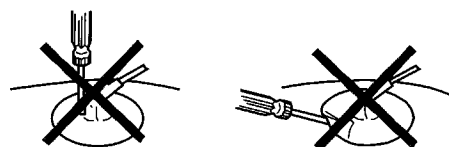
Note: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

* REMOVING PROCEDURES.



• HOW TO HANDLE AN ANODE-CAP

- ① Don't damage the surface of anode-cap with sharp shaped material !
- ② Don't press the rubber hardly not to hurt inside of anode-caps !
A metal fitting called as shatter-hook terminal is built into the rubber.
- ③ Don't turn the foot of rubber over hardly !
The shatter-hook terminal will stick out or damage the rubber.



SECTION 3

SET - UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches to these settings :

Ⓢ Contrast 80% (or remote control normal)
 ☆ Brightness 50%

- Carry out the following adjustments in this order :

1. Beam landing
2. Convergence
3. Focus
4. White balance

Note: Testing equipment required.

1. Color bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

Preparation:

- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

- Input the white signal with the pattern generator.
 CONTRAST } normal
 BRIGHTNESS }
- Set the pattern generator raster signal to red.
- Move the deflection yoke forward and adjust with the purity control so that the red is at the centre and the blue and the green take up equally sized areas on each side. (See Fig. 3-1 - 3-3)
- Move the deflection yoke forward and adjust so that the entire screen becomes red. (See Fig. 3-1)
- Switch the raster signal to blue, then to green and verify the condition.
- When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
- If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Fig. 3-4)

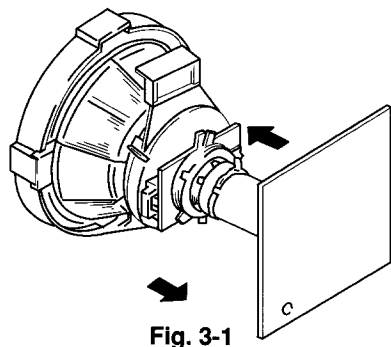


Fig. 3-1

Fig. 3-2

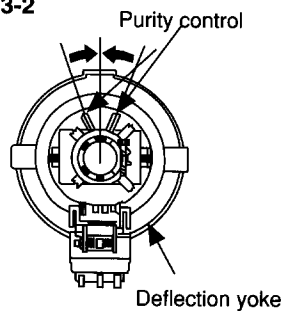


Fig. 3-3

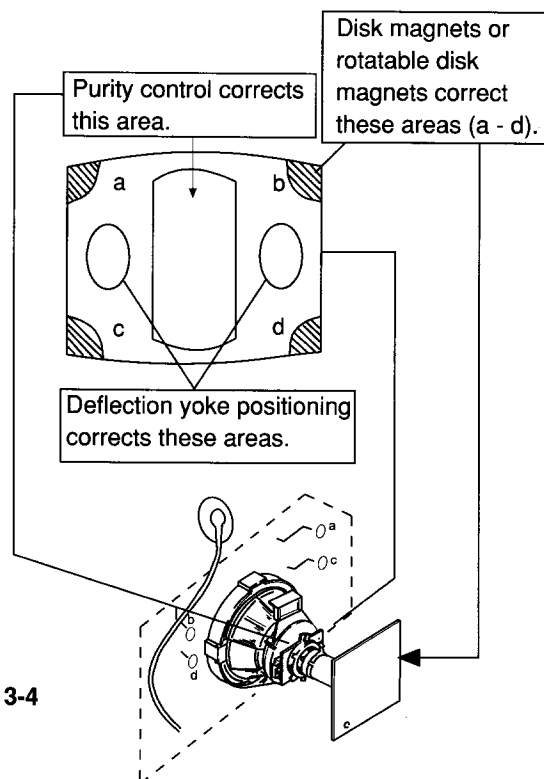
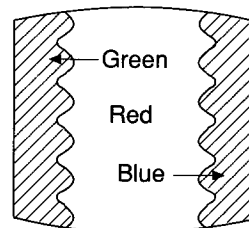


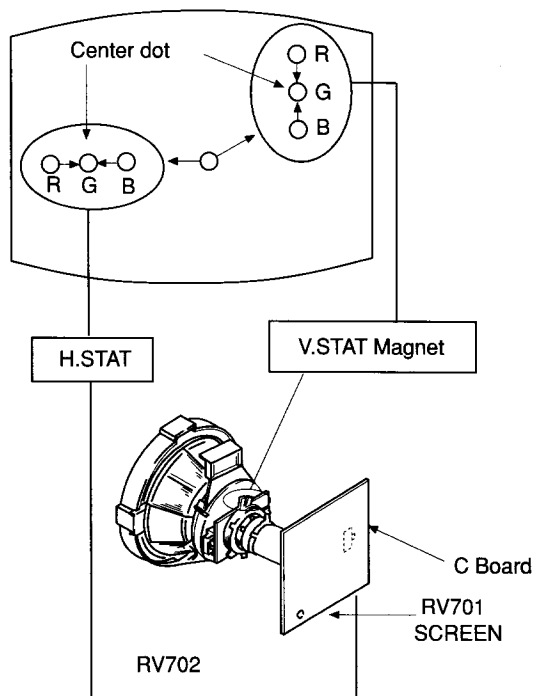
Fig. 3-4

3-2. CONVERGENCE

Preparation:

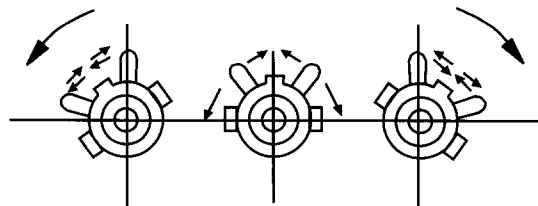
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide a dot pattern.

(1) Horizontal and vertical static convergence

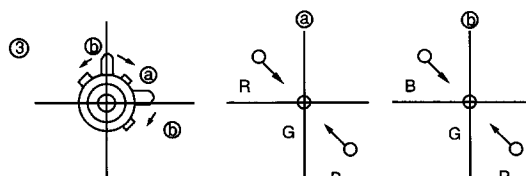
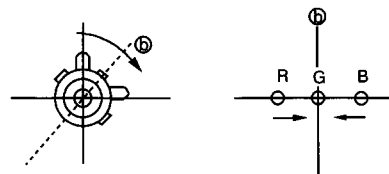
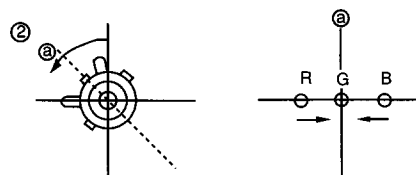
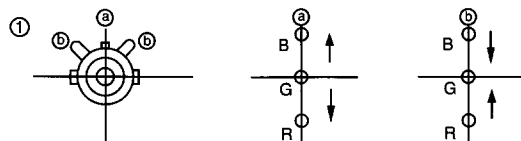


1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the centre of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the centre of the screen.
3. If the H.STAT variable resistor cannot bring the red, green, and blue points together at the centre of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.
(In this case, the H.STAT variable resistor and the V.STAT magnet influence each other)

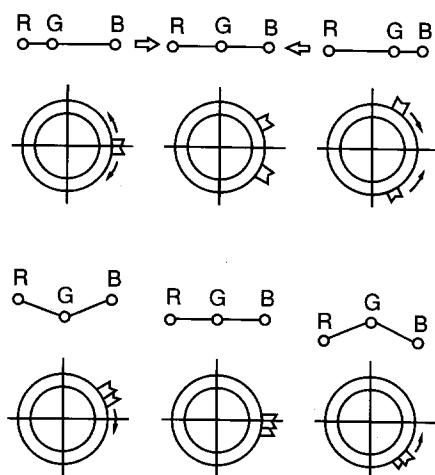
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



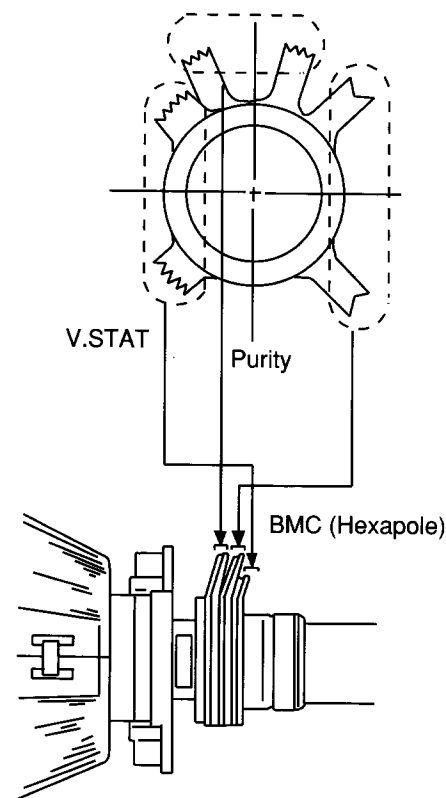
4. If the V.STAT magnet is moved in the direction of the (a) and (b) arrows, the red, green, and blue points move as shown below.



• Operation of BMC (Hexapole) Magnet



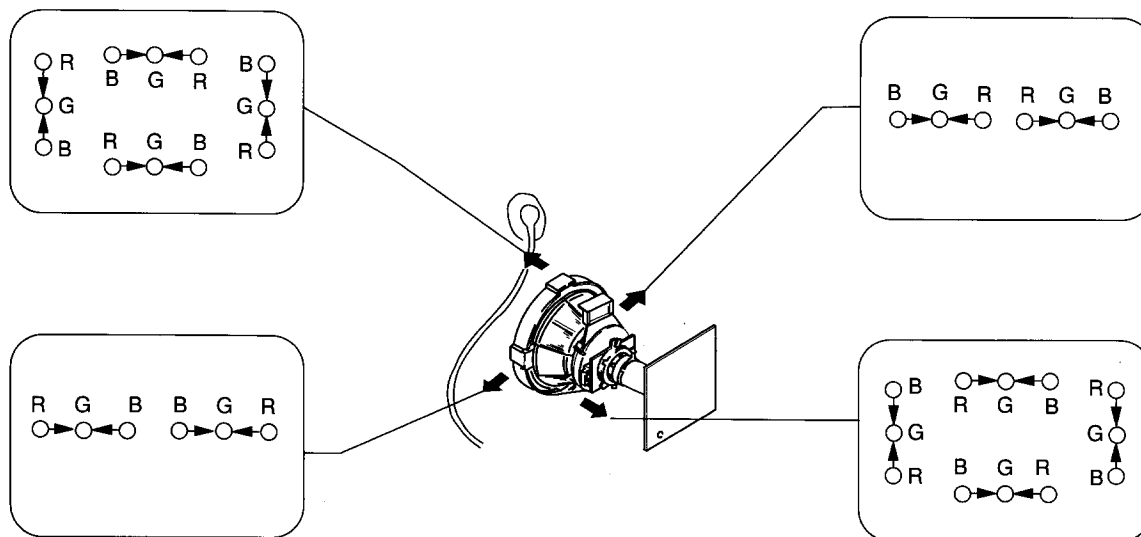
- The respective dot position resulting from moving each magnet interact, so be sure to perform adjustment while tracking.
Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the centre of the screen (by moving the dots in the horizontal direction).



(2) Dynamic convergence adjustment.

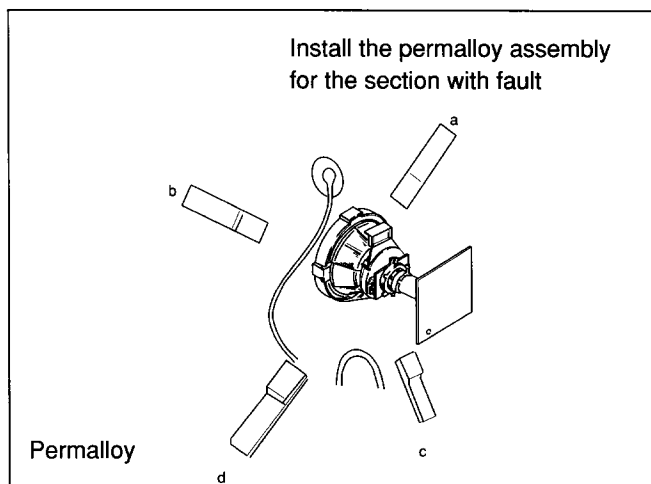
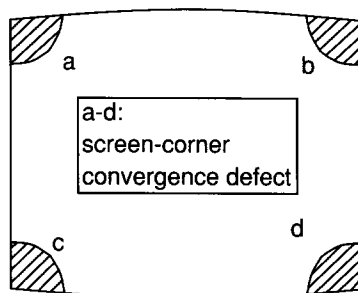
Preparation:

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.
1. Slightly loosen the deflection yoke screws.
 2. Remove the deflection yoke spacer.
 3. Move the deflection yoke as shown in the figure below and optimize the convergence.
 4. Tighten the deflection yoke screws.
 5. Re-install the deflection yoke spacer.



(3) Screen corner convergence.

If you are unable to adjust the corner convergence properly, correct them with the use of permalloy assemblies.

**3-3. WHITE BALANCE****G2 Setting**

1. Switch the set into AV mode (apply no signal to the AV connectors).
2. Connect a Volt Meter to Test Point 1 on the A board.
3. Adjust RV01 to obtain a voltage of $3.0V \pm 0.3V$.

White balance adjustment

1. Input an all white signal from the pattern generator.
2. Enter into the service mode.
3. Enter into Picture Adjustment service menu.
4. Select sub-contrast and adjust to 7.
5. Select the Green Drive and adjust so that the white balance becomes optimum.
6. Select the Blue Drive and adjust so that the white balance becomes optimum.
7. Press the TV button to return to TV operation.

PICTURE ADJUSTMENT

AFC mode	1
REF position	3
SCP BGR	1
SCP BGF	1
Trap Fo	7
Sub contrast	Adj
Sub colour	Adj
Sub brightness	Adj
Sub hue	Adj
Green drive	Adj
Blue drive	Adj
Green cutoff	Adj
Blue cutoff	Adj
Gamma	0
Pre / overshoot	0
Y delay	5

SECTION 4

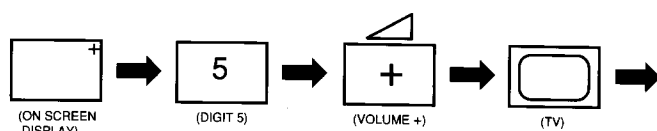
CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied remote commander RM-862.

HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power switch of the set and enter into standby mode.
2. Press the following sequence of buttons on the Remote Commander.



"TT-- " will appear in the top right corner of the screen. Other status information will also be displayed.

3. Press MENU on the commander to obtain the following menu on the screen.

TEST MENU

> Picture adjustment
 Geometry
 Wide
 MSP
 IC status
 Current TV status

PICTURE ADJUSTMENT

AFC mode	1
REF position	2
SCP BGR	1
SCP BGF	1
Trap Fo	0
Sub contrast	Adj
Sub colour	Adj
Sub brightness	Adj
Sub hue	Adj
Green drive	Adj
Blue drive	Adj
Green cutoff	Adj
Blue cutoff	Adj
Gamma	0
Pre / overshoot	0
Y delay	3

GEOMETRY ADJUSTMENT

V Size	Adj
V Position	Adj
S Correction	Adj
V Linearity	Adj
H Size	Adj
H Position	Adj
Pin Amp	Adj
Pin Phase	Adj
AFC Bow	Adj
AFC Angle	Adj
EHT V	Adj
EHT H	Adj
Corner Pin	Adj

WIDE

V Aspect	47
V Scroll	31
Upper V Lin	0
Lower V Lin	0
Left Blanking	1
Right Blanking	11

4. Move to the corresponding adjustment using the button on the commander.
5. Move the button to the right to enter the selected adjustment.
6. Turn off the power to quit the service mode when adjustments are completed.

MSP

AGC ON/OFF	ON
Constant gain CDB	0
FM prescale FMP	36
Zwei mono-st WHI	36
Zwei st-mono WLO	18
Zwei mono-bi WMH	36
Zwei bi-mono WLO	18
Time zwei WML	41
Fawct limit	10
Fawct soll init FAW	12
Fawer tol	2
Nicam Err Max CCT	10
Nicam Err Min	0
Nicam Prescale NIP	97
Time Nicam	31
Carrier mute CRM	OFF
Audio clock ACO	HIZ
Scart prescale	25
Scart volume	64

IC STATUS (CXA2000 / CXA2040)**CXA2000**

H lock	1
IKR	1
VNG	0
X-RAY	0
Colour system	3
CV1 Sync	1

CXA2040

Sync sep	1
S1 mode pin	01
S2 mode pin	01

TUNER

Tuner status	01101011
--------------	----------

TV STATUS

Text system	C TEXT/TV TEXT
Dolby	NO/YES
Text language set	WEST/EAST/RUSSIAN
Menu language set	WEST/EAST/RUSSIAN
Destination	B/D/U/K/L/E/A/R
Scart 16:9	OFF/ON
RGB priority	OFF/ON
Ageing	OFF/ON
Size	29/25
Colour trap sw	SECAM/ALL
Velocity mod	ON/OFF
AFT STATUS	WINDOW/HIGH/LOW

SUB BRIGHTNESS ADJUSTMENT

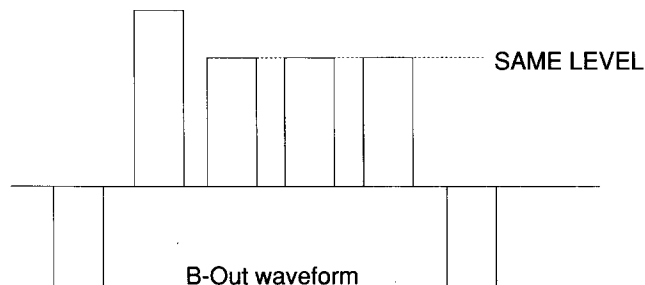
1. Input a Phillips pattern.
2. Set the picture control to minimum.
3. Enter into the Picture Adjustment Service Menu.
4. Adjust the Sub-Brightness data so that there is barely a difference between the 0 IRE and 10 IRE signal.

SUB CONTRAST ADJUSTMENT

1. Input a video that contains a small 100% area on a black background.
2. Set the picture control to maximum.
3. Connect an oscilloscope to pin 3 of CN301 (A board).
4. Enter into the Picture Adjustment Service Menu.
5. Adjust the Sub-contrast data to obtain a black to white amplitude of 2.50 volts.

SUB COLOUR ADJUSTMENT

1. Receive a PAL Colour Bar video signal.
2. Connect an oscilloscope to pin 3 of CN301 (A board).
3. Enter into the Picture Adjustment Service Menu.
4. Adjust the sub colour data so that cyan, magenta and blue colour bars are of equal height.



NOTE: The data shown in the TV STATUS table is dependant on destination, screen size and country.

SYSTEM B/G, D/K, I & L I.F ADJUSTMENT

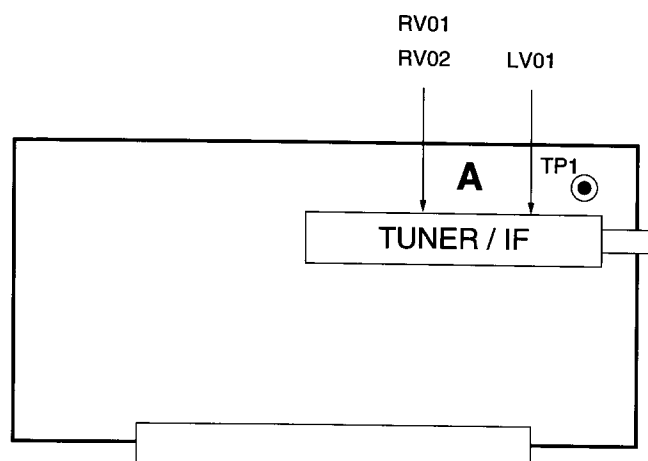
1. Input an off air signal of between 60-100dBuV / 75 ohm terminated, via the tuner socket.
2. Enter into the I.F adjustment service mode (i.e. " TT 59 ") to fix the I.F frequency to 38.9 MHz.
3. Enter into the service mode and select "Current TVStatus".
4. Adjust the I.F coil (LV01) until the "AFT Status" indicates a " Window " condition.

SYSTEM L BAND 1 I.F ADJUSTMENT

1. Input an off air signal of between 60-100dBuV / 75 ohm terminated, via the tuner socket.
2. Enter into the I.F adjustment service mode (i.e. " TT 59 ") to fix the I.F frequency to 34.2 MHz.
3. Enter into the service mode and select "Current TVStatus".
4. Adjust the RV02 until the "AFT Status" indicates a " Window " condition.

TUNER AGC ADJUSTMENT

1. Receive a signal of 63dBuV / 75 ohm terminated via the tuner socket.
2. Measure the voltage at test point 1 (A board).
3. Adjust RV01 to obtain a voltage of $3.0V \pm 0.3V$.



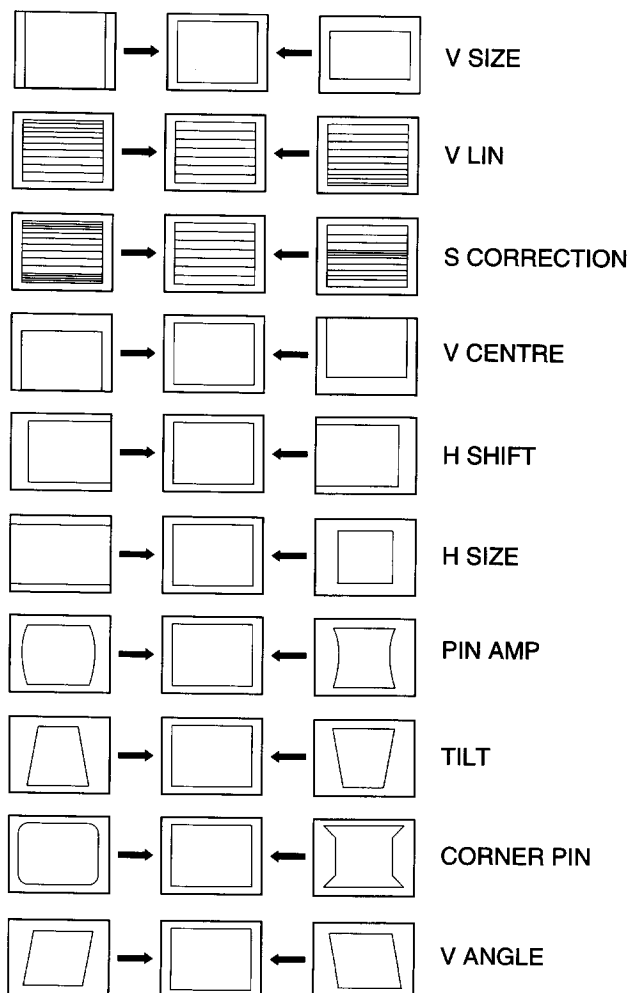
- A Board component side -

DEFLECTION SYSTEM ADJUSTMENT

1. Enter into the Geometry Adjustment Service Menu.
2. Select and adjust each item in order to obtain the optimum image.

GEOMETRY ADJUSTMENT

V Size	Adj
V Position	Adj
S Correction	Adj
V Linearity	Adj
H Size	Adj
H Position	Adj
Pin Amp	Adj
Pin Phase	Adj
AFC Bow	Adj
AFC Angle	Adj
EHT V	Adj
EHT H	Adj
Corner Pin	Adj



4-2. TEST MODE 2:

Is available by pressing Test button twice, OSD " TT " appears. The functions described below are available by pressing the two numbers. To release the Test mode 2, press 0 twice, or switch the TV into stand-by mode.

00	Switch test mode 2 off	
01	Picture maximum	
02	Picture minimum	
03	Volume 30%	
04	Set service menu mode	
05	Set production menu mode	
06	Volume 80%	
07	Set ageing condition	
08	Set shipping condition	
09	Language reset	
10	No function	
11	Adjustment without OSD	
12	Dummy	
13	Display TV configuration	
14	Forced AV 6:9 mode	
15	Reset LPM from ROM data	
16	copy LPM to reset memory	
17	Preset label for AV sources	
18	RGB priority on/off	
19	Clear all preset labels	
20	No function	
21	Sub contrast	
22	Sub colour	
23	Sub brightness	
24	Set destination = U	
25	Set destination = D	
26	Set destination = B	
27	Set destination = K	
28	Set destination = L	
29	Set destination = E	
30	No function	
31	Set destination =A	
32	Dummy	
33	Auto AGC	
34	Dummy	
35	Manual AGC adjust	

36-40	Dummy	
41	Re-initialise NVM	
42	Production use only	
43	Initialise geometry settings	
44	Initialise all favourite pages = 100	
45	Channel locks = off	
46	Dealer commander mode	
47	Default MSP settings	
48	Restore NVM test byte	
49	Delete NVM test byte	
50-60	No function	
61	Turn on Dolby Pro Logic mode	
62	White noise to left speaker	
63	White noise to right speaker	
64	White noise to centre speaker	
65	White noise to rear speaker	
66	Set standard stereo mode	
67	Set Pro Logic normal mode	
68	Set Pro Logic wide mode	
69	Set Pro Logic phantom mode	
70	No function	
71	Picture rotation on/off	
72	Dolby register settings	
74	No function	
75	Reset picture colour balance	
76	Reset picture geometry	
77	Reset sound settings	
78	Reset error codes in the NVM	
79-99	No function	

4-3. BE-3D SELF DIAGNOSTIC SOFTWARE

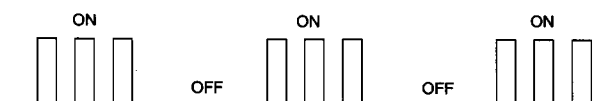
The identification of errors within the BE-3D chassis is triggered in 1 of 2 ways :- 1: Bus busy or 2: Device failure to respond to IIC. In the event of one of these situations arising the software will first try to release the bus if busy (Failure to do so will report with continuous flashing LED) and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the led (Series of flashes which must be counted) See Table 1, non fatal errors are reported with this method.

Table 1

ERROR	LED ERROR COUNT
Protection circuit trip < ANY TIME >	02
IIC SCL LOW < POWER UP ONLY >	03
IIC SDA LOW < POWER UP ONLY >	04
IIC SDA & SCL LOW < POWER UP ONLY >	05
Jungle/Chroma controller no acknowledge < POWER UP ONLY >	06
Video Switch no acknowledge < POWER UP ONLY >	07
Tuner no acknowledge	08
MSP no acknowledge	09
NVM no acknowledge	10
M3L TXD LOW < POWER UP ONLY >	11
M3L RXD LOW < POWER UP ONLY >	12
M3L ENABLE LOW < POWER UP ONLY >	13
M3L TXD & RXD LOW < POWER UP ONLY >	14
Compact Text test fail < POWER UP ONLY >	15
AV switch cannot power on reset	16
Cannot initialise jungle	17
NVM acknowledge fail after initialisation	18
Multiple devices with no acknowledge < POWER UP ONLY >	19
Compacttext run-time failure	20
AVSWITCH response failure after power up	21
JUNGLE/CHROMA controller response failure after power up	22
CompactText does not respond	23

Flash Timing Example : e.g. error number 3.

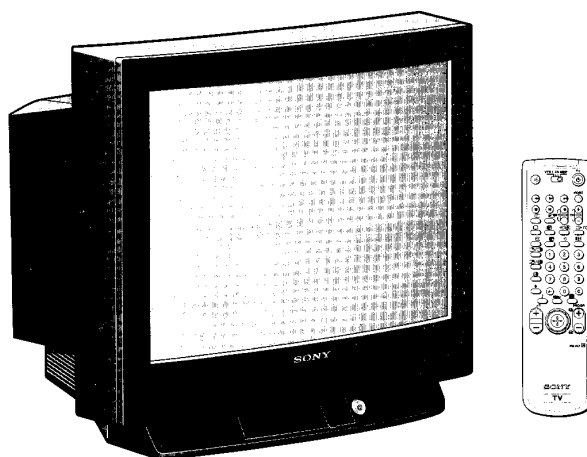
Stby LED



SERVICE MANUAL

BE-3D CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-25F2A	RM-862	Italian	SCC-K05E-A	KV-25F2E	RM-862	Spanish	SCC-K06E-A
KV-25F2B	RM-862	French	SCC-K01E-A	KV-25F2U	RM-862	UK	SCC-K04C-A
KV-25F2D	RM-862	AEP	SCC-K07E-A				



TRINITRON® COLOR TV
SONY®

ITEM	MODEL	Television System	Channel Coverage	Colour System
Italian	B/G/H	VHF: E2-E12, S1-S20, A-H, H1, H2 UHF: E21-E69		PAL NTSC3.58/4.43 (video input only)
French	B/G/H, D/K, L, I	L SECAM VHF: F2-F10 UHF: F21-F69 TV CABLE TV (1) VHF: B-Q UHF: S21-S44 PAL B/G/H VHF: E2-E12 UHF: E21-E69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 PAL I UHF: B21-B69 D/K VHF: R01-R20 UHF: B21-B69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, S42-S46		PAL, SECAM NTSC3.58/4.43 (video input only)
AEP	B/G/H, D/K	B/G/H VHF: E2-E12 UHF: S1-S20 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 D/K VHF: R01-R20 UHF: B21-B69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, S42-S46		PAL, SECAM NTSC3.58/4.43 (video input only)
Spanish	B/G/H, D/K	PAL B/G/H VHF: E2-E12 UHF: E21-E69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 D/K VHF: R01-R20 UHF: B21-B69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, S42-S46		PAL, SECAM NTSC3.58/4.43 (video input only)
UK	I	UHF: U21-U69		PAL NTSC3.58/4.43 (video input only)

MODEL	25F2A	25F2B	25F2D	25F2E	25F2U
Power Consumption	79W	103W	103W	103W	164W

SPECIFICATIONS

Picture Tube Super Trinitron
Approx. 63 cm (25 inches)
(Approx. 59 cm picture measured diagonally)
110° -deflection

Rear/Front Terminals

[REAR]

- ➡ 1 21-pin Euro connector (CENELEC standard)
 - Inputs for audio / video signals
 - Inputs for RGB
 - Outputs for TV audio and video signals
- ➡ 2/ ➡ 2, 21-pin Euro connector (CENELEC standard)
 - Inputs for audio / video signals
 - Inputs for S video
 - Outputs for TV audio and video signals (selectable)
- ➡ Audio outputs - phono jacks
 - Left/Right Speaker Terminals
 - Surround Speaker Terminals

[FRONT]

- ➡ 3 , Video input - phono jack
- ➡ 3 , Audio inputs - phono jacks
- ➡ 3 , S video input - 4 pin DIN
- 🎧 Stereo minijack - headphone jack

Sound output

- Left/Right 2x10W (RMS)
2x20W (music power)
- Centre 2x2.5W (RMS)
2x5W (music power)
- Surround 2x5W (RMS)
2x10W (music power)
- Dimensions 586x551x480 mm approx.
- Weight Approx. 34.0 kg (with speakers)

Supplied accessories

- RM-862 Remote Commander (1)
- Batteries R6 (2)
- Left Speaker (1)
- Right Speaker (1)
- Surround Speakers (2)
- Surround Speakers Leads (2)

- Other features Fastext, NICAM
Dolby Pro Logic


[RM-862]

Remote control system Infrared control
 Power requirements 3V dc (2 batteries) R6 (size AA)
 Dimensions Approx. 210x56x24 mm (w/h/d)
 Weight Approx. 110g (Not including battery)

Design and specifications are subject to change without notice.

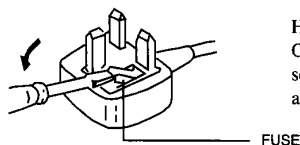
Model name Item	KV-25F2A	KV-25F2B	KV-25F2D	KV-25F2E	KV-25F2U
PIP	OFF	OFF	OFF	OFF	OFF
MPIP	OFF	OFF	OFF	OFF	OFF
RGB Priority	ON	ON	OFF	OFF	OFF
Rotation Coil	OFF	OFF	OFF	OFF	OFF
VM Set	OFF	OFF	OFF	OFF	OFF
Scart 1	ON	ON	ON	ON	ON
Scart 2	ON	ON	ON	ON	ON
Front in (3)	ON	ON	ON	ON	ON
Scart 4	OFF	OFF	OFF	OFF	OFF
AKB in 16:9 mode	ON	ON	ON	ON	ON
TXT	ON	ON	ON	ON	ON
FLOF	ON	ON	ON	ON	ON
TOP	ON	ON	ON	ON	ON
Norm B/G/H	ON	ON	ON	ON	OFF
Norm I	OFF	ON	OFF	OFF	ON
Norm D/K	OFF	ON	ON	ON	OFF
Norm L	OFF	ON	OFF	OFF	OFF
Language Preset	Italian	French	German	Spanish	English

WARNING (KV-25F2U only)




The flexible mains lead is supplied connected to a **B.S. 1363** fused plug having a fuse of **5 AMP** capacity. Should the fuse need to be replaced, use a **5 AMP FUSE** approved by **ASTA** to **BS 1362**, ie one that carries the  mark.

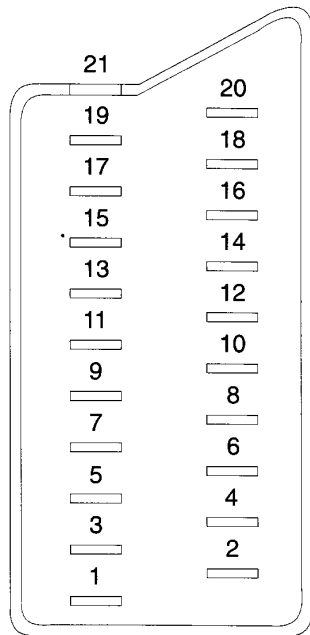
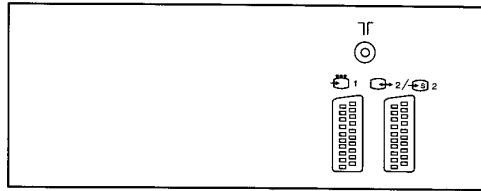
IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR YOUR SOCKET OUTLETS IN YOUR HOME. IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED. THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE SOCKET OUTLET.

When an alternative type of plug is used it should be fitted with a **5 AMP FUSE**, otherwise the circuit should be protected by a **5 AMP FUSE** at the distribution board.



How to replace the fuse.
 Open the fuse compartment with the screwdriver blade and replace the fuse.

21 pin connector ( 1,  2 /  2)



Pin No.	1	2	4	Signal	Signal Level
1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Audio output B (Right)	Standard level : 0.5V rms Output impedance : Less than 1k ohms*
2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Audio input B (Right)	Standard level : 0.5V rms Output impedance : More than 10k ohms*
3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Audio output A (Left)	Standard level : 0.5V rms Output impedance : Less than 1k ohm*
4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (Audio)	
5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (Blue)	
6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Audio input A (Left)	Standard level : 0.5V rms Output impedance : Less than 10k ohm*
7	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Blue input	0.7 ± 3dB, 75 ohms, positive
8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Function select (AV control)	High state (9.5 - 12V) : Part mode Low state (0 - 2V) : TV mode Input impedance : More than 10k ohms Input capacitance : Less than 2nF
9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (Green)	
10	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Open	
11	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Green	
12	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Open	
13	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (Red)	
14	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (Blanking)	
15	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Red input	0.7 ± 3dB, 75 ohms, positive
16	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	(S signal) chroma input	0.7 ± 3dB, 75 ohms, positive
17	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Blanking input (Ys signal)	High state (1 - 3V) Low state (0 - 0.4V) Input impedance : 75 ohms
18	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (Video output)	
19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (Video input)	
20	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Video output	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
21	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Video input	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Video input Y (S signal)	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Common ground (plug, shield)	

☐ Connected ☒ Not Connected (Open) * at 20Hz - 20kHz

Pin No.	Signal	Signal Level
1	Ground	
2	Ground	
3	Y (S signal) input	1V ± 3dB 75 ohm, positive Sync. 0.3V -3 + 10dB
4	C (S signal) input	0.3V ± 3dB 75ohm, positive Sync.

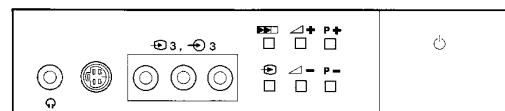


TABLE OF CONTENTS

<i>Section</i>	<i>Title</i>	<i>Page</i>	<i>Section</i>	<i>Title</i>	<i>Page</i>
1. GENERAL			5. DIAGRAMS		
	Overview	7	5-1.	Block Diagrams	33
	Getting Started	8	5-2.	Circuit Boards Location	39
	TV Operation	9	5-3.	Schematic Diagrams and Printed Wiring Boards	39
	Advanced Operations	10		* D Board	43
	Teletext	16		* A Board	48
	Optional Equipment	17		* C Board	58
	For Your Information	19		* A1 Board	61
2. DISASSEMBLY				* J Board	63
2-1.	Rear Cover Removal	20		* K1 Board	63
2-2.	Chassis Assy Removal	20		* IF Board [VIF (AEP), VIF (UK)]	65
2-3-1.	Service Position (1)	20		* IF Board [VIF (FR)]	65
2-3-2.	Service Position (2)	20		IC Blocks	67
2-4.	Wire Dressing	21	5-4.	Semiconductors	69
2-5.	A Board Removal	21	6. EXPLODED VIEWS		
2-6.	A Extension Board	21	6-1.	Chassis	71
2-7.	A1 Extension Boards	21	6-2.	Picture Tube	72
2-8.	Picture Tube Removal	22	6-3.	Box Speaker	73
	Removal and Replacement of The Main-Bracket		7. ELECTRICAL PARTS LIST		74
	Bottom Plates	23			
3. SET-UP ADJUSTMENTS					
3-1.	Beam Landing	24			
3-2.	Convergence	25			
3-3.	White Balance	27			
4. CIRCUIT ADJUSTMENTS					
4-1.	Electrical Adjustments	28			
4-2.	Test Mode 2 :	31			
4-3.	BE-3D Self Diagnostic Software	32			


CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND, IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.


ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION !!

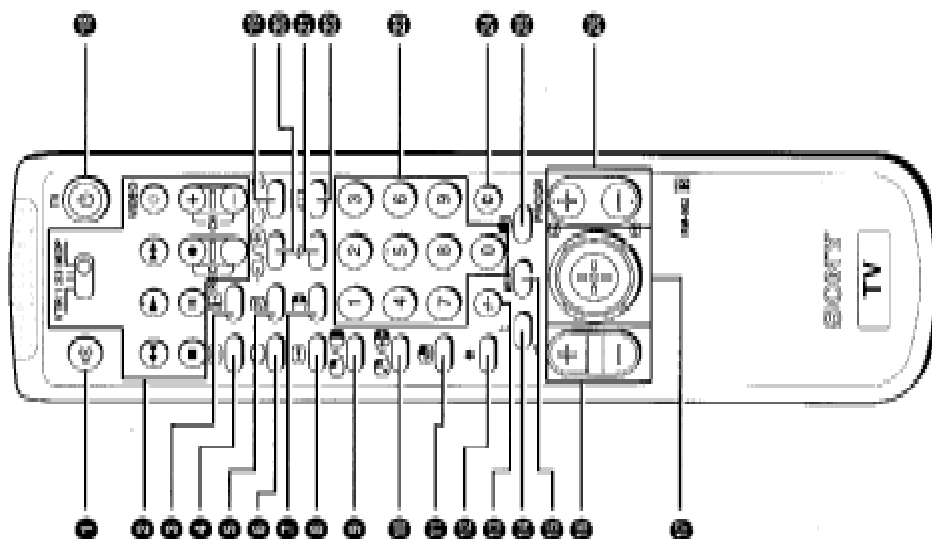
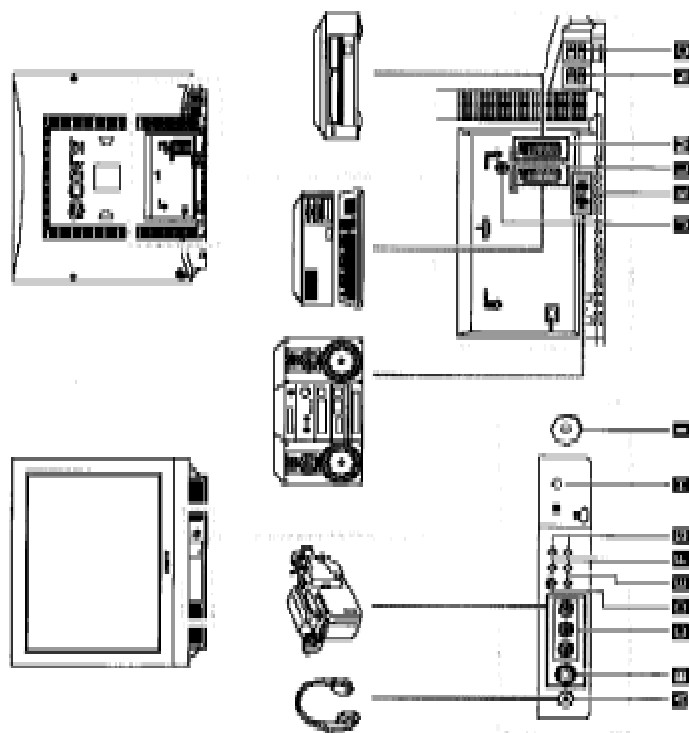
AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE  SUR LES VUES EXPLODÉES ET LES LISTES DE PIÈCES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1 GENERAL

Operating Instructions Manual reveals all the secrets of the new **Model 6000**. The **Operating Instructions Manual** is the key to the operation of the **Model 6000**.



Overview

This section briefly describes the controls and the buttons on the TV set and on the Remote Commander. Please open the flap at the front of the Instruction manual for illustrations of the TV set and the Remote Commander. Letters in boxes refer to the buttons on the TV set, numbers in circles to the buttons on the Remote Commander. For more information, refer to the page numbers given next to each description.

TV buttons and Terminals

Reference and Symbol	Name	Refer to Page
Front of the set		
A	Headphones jack	4
B	S-video input jack	35
C	Audio/video input jacks	35
D	Autocue Preset button	13
E	Input mode button	14
F	Volume control	13
G	Programme button	13
H	Standby mode indicator	13
I	Main power switch	13
Rear of the set		
J	Aerial socket	11
K	Audio phono jacks	33
L	21 pin Euro connector	33
M	21 pin Euro connector	33
N	Left/Right speaker terminals (KV-2572U, 2862U only)	16
O	Surround speaker terminals (KV-2572U, 2862U only)	16

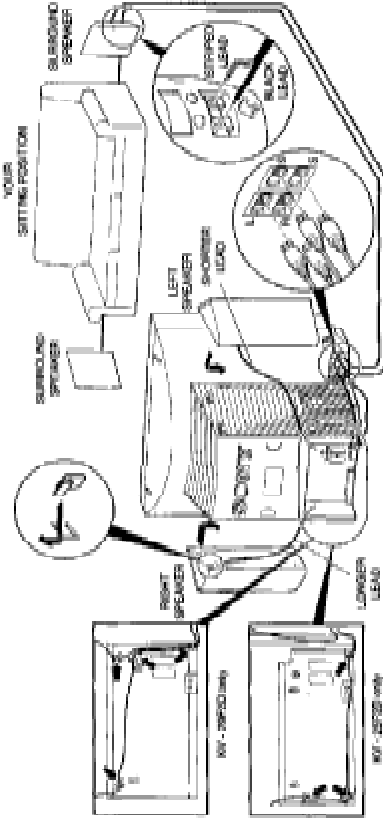
Remote Commander Operation

Reference and Symbol	Name	Refer to Page
P	Muting on/off button	13
Q	VCR operation	36
VTR123MDP		
	Video equipment selector	
	Video equipment operation buttons	
YDS0-0, CH +/-		
R	On-screen display button	13
S	Time display button	13
T	Teletext button	14
U	TV power on/TV mode button	13, 14
	No function on this set	-
V	Double-digit entering button	13
W	Sound mode button	20
X	Menu on/off button	15
Y	Volume control button	15
Z	Jumpstick for menu selection. Press to confirm selection (OK function)	15
AA	TV standby button	13
AB	Teletext: reveal button	31
AC	Input mode button	14, 31
AD	Teletext: Forcing the subpage	
AE	Teletext: Favourite pages button	32
AF	Button to change screen format	13
AG	Number buttons	13
AH	Direct channel button	14
AI	Picture mode button	20
AJ	Programme buttons	13, 14
AK	Teletext: Page-up/page-down buttons	


Step 1

Connecting the Speakers

- Do not switch on the TV before you connect the speakers.
- Dolby (®) Pro Logic Surround normally requires 5 speakers:
- Centre speaker (incorporated in the TV set)
 - for anchoring the stable sound image, like dialogue, to the TV screen
 - Left and Right front speakers**
 - for the normal two channel stereo or bilingual broadcasts
 - Surround speakers**
 - for the special effects created by the surround channel



Notes:

- Connect the speakers using the leads provided. The striped lead (+) is for the red terminal of the speaker and the black lead (-) is for the black terminal.
 - If you use your own speakers, make sure they are at least 8Ω impedance and are magnetically shielded. Otherwise picture distortion may occur.
 - For your safety, do not hold the speakers when lifting the set.
- (®) Manufactured under license from Dolby Laboratories Licensing Corporation. DOLBY, the double-D symbol  and "PRO LOGIC" are trademarks of Dolby Laboratories Licensing Corporation.

Step 2

Connecting the Aerial
(if you connect a VCR, skip to step 3)

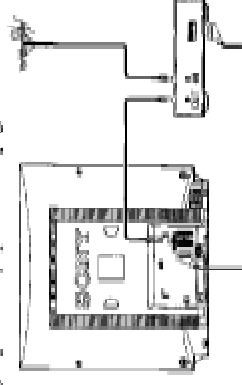
Insert the aerial plug tightly into the aerial socket . Use a good-quality aerial cable (not supplied), corresponding to the relevant regulations.

Step 3

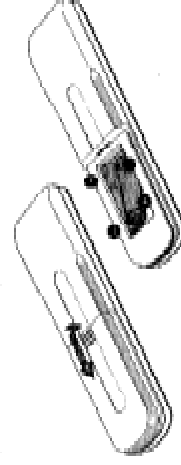
Connecting a VCR

We recommend that you tune in the VCR signal to programme number "10". For details, see "Presetting Channels Manually" on page 17.

See "Connecting Optional Equipment" on page 33 for more information.



Step 4

Inserting the Batteries Into the
Remote Commander

Respect your environment! Dispose of used batteries in an environmentally friendly way.

Step 5

Presetting Channels Automatically

With this function, the TV can automatically search and store up to 100 different channel numbers.

If you prefer manual presetting, refer to "Presetting Channels Manually" on page 17.

- 1 Plug into mains.
Press the power switch **⏻** on the TV set.
 - 2 Press and hold the button **⏻** on the TV set until the automatic menu is displayed and the search starts.
- After all available channels are stored, the normal TV picture is shown.

Note: Channels are automatically stored as follows:

Programme 1	BBC1
Programme 2	BBC2
Programme 3	ITV
Programme 4	CH4 or SAT

TV Operation

TV Operation

This section explains functions used whilst watching TV. Most operations are carried out using the remote commander (numbers in circles). All basic functions are also available on the TV set (letters in boxes). Open the flap at the front of the Instruction Manual to see the illustrations of the Remote Commander and the TV set.

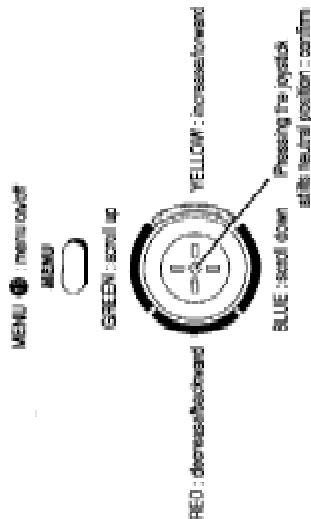
To	Press
Switch on	⏻ ⏻ on TV
Switch off temporarily	⏻ ⏻ TV is now in standby mode and ⏻ ⏻ indicator on TV lights up.
Switch on from standby mode	⏻ ⏻ PROG + / - ⏻ ⏻ or any number button ⏻
Switch off completely	⏻ ⏻ on TV To save energy, switch off your TV completely when TV is not in use.
Select programmes	PROG + / - ⏻ ⏻ or number buttons ⏻ For double digit number, press - / - ⏻ then the number e.g. For 23, press - / - ⏻ then 2 and 3.
Display on screen indications	⏻ ⏻ . Press again to make the indications disappear.
Adjust the volume	⏻ + or - ⏻ ⏻
Mute the sound	⏻ ⏻ . Press again to restore the sound.
Display the time (only available when teletext is broadcast)	⏻ ⏻ . Press again to make the display disappear.
View programmes in 16:9 mode	⏻ ⏻ . Press again to return to 4:3 mode.

TV Operation (continued)

To	Press
Turn in a channel temporarily	C . The indication "C" appears. Enter the double digit number. e.g. For 4, press 0 then 4.
View video input picture (see page 34 for detailed information)	repeatedly until the desired video input appears. Press or to restore the TV picture.
View teletext (see page 31 for detailed information)	
Switch on	
Select a page	three number buttons or (for next page) or (for previous page).
Use fastest	Push joystick to select a colour.
Switch off	

Adjusting and Setting the TV Using the Menu

You can adjust and set various functions on the TV using the following remote commander buttons:



Choosing the Menu Language

This function enables you to change the language of the menu screens.

- 1 Press power switch on the TV. If the standby indicator on the TV is lit, press or a number button on the Remote Commander.
 - 2 Press the MENU button on the remote commander.
- LANGUAGE
 English
 Deutsch
 Français
 Italiano
 Español
 Polski
 Dansk
 Magyar
- 3 Push to blue or green to select the language you want then push to yellow.
 - 4 Press the MENU button to restore the normal TV picture.

Presetting Channels Automatically

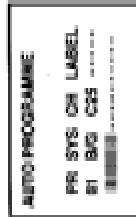
You may have already preset the channels automatically by using the method shown on page 12. You can also preset channels automatically by using the remote commander as follows:

1 Press the MENU button .

2 Push joystick  to blue or green to select the symbol  on the menu screen then push to yellow.



3 Push to blue or green to select 'Auto Programme'.



4 Push to yellow and hold until the automatic menu is displayed and the search starts.

After all available channels have been preset, the normal TV picture is shown.

Note: Channels are automatically stored as follows:

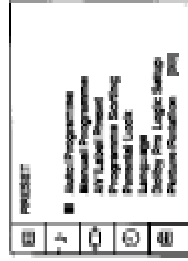
- | | |
|-------------|------------|
| Programme 1 | BBC1 |
| Programme 2 | BBC2 |
| Programme 3 | ITV |
| Programme 4 | CH4 or SAC |

Presetting Channels Manually

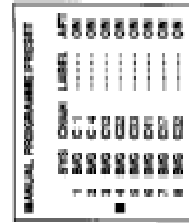
This function enables you to preset channels one by one to different programme numbers. This is also convenient for allocating programme numbers to various video input sources.

1 Press the MENU button .

2 Push joystick  to blue or green to select the symbol  on the menu screen then push to yellow.



3 Push to blue or green to select 'Manual Programme' then push to yellow.



4 Push to blue or green to select on which programme number you want to preset a channel then push to yellow.

5 Push to blue or green to select the TV/broadcast system (I) or a video input source (AV1, AV2,...) then push to yellow.

6 Select the first number digit of 'CHAN' then the second number digit of 'CHAN' with the number buttons  on the remote commander

or

Push joystick  to blue or green to search for the next available channel number.

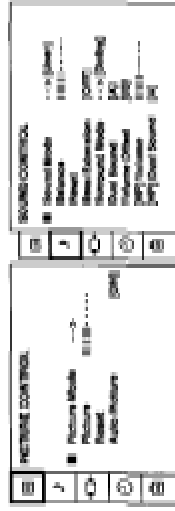
7 If you want to store the channel number, go to step 8. If not, select a new channel number using the number buttons  on the remote commander or push to blue or green to resume the search.

Adjusting the Picture and Sound

Although the picture and sound are adjusted at the factory, you can adjust them to suit your own taste.

1 Press the MENU button **Ⓜ**.

2 Push joystick **Ⓜ** to blue or green to select **[P]** for picture control or **[S]** for sound control then push to yellow.



3 Push to blue or green to select the desired item then push to yellow.

4 Push to red or yellow to alter the item then press the joystick **Ⓜ**.
For the effect of each control, see the following tables.

5 Repeat steps 3 and 4 to adjust the other items.

6 Press the MENU button **Ⓜ** to restore the normal TV picture.

PICTURE CONTROL Effect




Picture Mode	User → Game → Movie → Sports → Line In 'User' mode, you can preset Brightness, Colour, Sharpness and Hue (NTSC signals only) as follows: 1 Push joystick Ⓜ to blue or green to select the desired item then push to yellow. 2 Push to red or yellow to adjust then press the joystick Ⓜ . 3 Push to red to return to the PICTURE-CONTROL menu.
Contrast	Darker ——— Brighter
Reset	Restores picture to the factory preset levels.
Auto Picture	All the picture levels automatically change according to the surrounding lighting level. (Auto Picture Control)
Format	Wide screen effect (1.6:1)

8 Press the joystick **Ⓜ**.

9 Repeat steps 4 to 8 to preset other channels.










10 Press the MENU button **Ⓜ** to restore the normal TV picture.

Adjusting the Picture and Sound (continued)

SOUND CONTROL	Effect
Sound Mode	User → Back →> Jazz →> Pop In 'User' mode, you can preset Treble and Bass as follows. 1 Push joystick  to blue or green to select the item then push to yellow. 2 Push to red or yellow to adjust then press the joystick  . 3 Push to red to return to the 'SOUND CONTROL' menu. Left  Right Restores sound to the factory preset levels. Bass Boost Boosts bass by a fixed amount. Choose among special sound effects. Pro Logic →> Pseudo Stereo →> Spatial →> Club →> Theatre →> Hall →> Church →> Stadium →> Off A: Left channel →> R: Right channel →> stereo →> mono Presets the volume level for individual programmes. -12 →> 0 →> +12 Adjusts the headphone volume. Presets the headphone channels. A: Left channel →> R: Right channel →> stereo →> mono
Balance	
Bass	
Bass Extension	
Surround Mode	
Dual Sound	
Volume Offset	
C: Volume	
C: Dual Sound	

Changing Modes Quickly

You can quickly change the Surround Mode or the Picture Mode without entering the 'SOUND CONTROL' or the 'PICTURE CONTROL' menu.

- 1 Press  or  for the picture or  or  for the sound.
- 2 Push joystick  to blue or green to select the desired mode then push to yellow.
- 3 Press  or  or  or  again to restore the normal TV screen.



Manual Fine-Tuning

Normally, the automatic fine-tuning (AFT) function is operating.

If the picture is distorted however, you can manually fine-tune the TV to obtain a better picture reception.




- 1 Press the MENU button .
- 2 Push joystick  to blue or green to select the symbol  on the menu screen then push to yellow.
- 3 Push to blue or green to select 'Manual Programme' then push to yellow.

MANUAL PROGRAMME PRESET			
CH	CHAN	LABEL	OFF
1	000	1	On
2	000	2	On
3	000	3	On
4	000	4	On
5	000	5	On
6	000	6	On
7	000	7	On
8	000	8	On

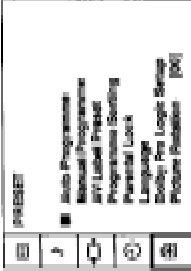
- 4 Push to blue or green to select the programme number which corresponds to the channel you want to manually fine-tune.
- 5 Push to yellow repeatedly until the AFT position changes colour.
- 6 Push to blue or green to change the frequency of the channel from -15 to +15.
- 7 Press the joystick .
- 8 Repeat steps 4 to 7 to fine-tune other channels.
- 9 Press the MENU button  to restore the normal TV picture.

Sorting Programme Positions

This function enables you to move channels to different programme numbers.

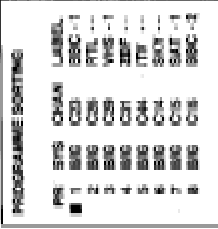
- 1 Press the MENU button .
- 2 Push joystick  to blue or green to select the symbol  on the menu screen then push to yellow.

3 Push to blue or green to select 'Programme Sorting' then push to yellow.




The screenshot shows a menu with the following options: PRESET, Auto Programme, Manual Programme, AT Label Preset, Programme Sorting (highlighted), Parental Lock, Language, Dolby Pro Logic Setup, and Picture Position [RE].

4 Push to blue or green to select the channel you want to move to another programme number then push to yellow.






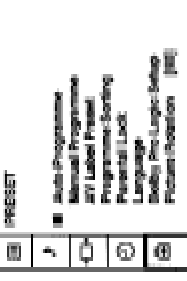
The screenshot shows a table with the following columns: PR, SYS, CHAN, LABEL, and a list of channels. The channels listed are: 1 BBC C20 BBC-1, 2 BBC C20 PTL, 3 BBC C20 VHS-1, 4 BBC C20 ZDF, 5 BBC C20 ITN, 6 BBC C20 SAT-1, 7 BBC C20 SAT-1, 8 BBC C20 BBC-2.

- 5 Push to blue or green to select the programme number to which you want to move the channel selected in step 4 then push to yellow.
- 6 Repeat steps 4 to 5 if you wish to move other channels to different programme numbers.
- 7 Press the MENU button  to restore the normal TV picture.

Using Parental Lock


This function enables you to prevent undesirable broadcasts from appearing on the screen. We suggest you use this function to prevent children from watching programmes which you consider unsuitable.

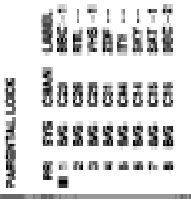
- 1 Press the MENU button .
- 2 Push joystick  to blue or green to select the symbol  on the menu screen then push to yellow.
- 3 Push to blue or green to select 'Parental Lock' then push to yellow.



The screenshot shows a menu with the following options: PRESET, Auto Programme, Manual Programme, AT Label Preset, Programme Sorting, Parental Lock (highlighted), Language, Dolby Pro Logic Setup, and Picture Position [RE].

4 Push to blue or green to select the channel you want to block then push to yellow.

The symbol  appears before the programme number to indicate that this channel is now blocked.



The screenshot shows a table with the following columns: PR, SYS, CHAN, LABEL, and a list of channels. The channels listed are: 1 BBC C20 BBC-1, 2 BBC C20 PTL, 3 BBC C20 VHS-1, 4 BBC C20 ZDF, 5 BBC C20 ITN, 6 BBC C20 SAT-1, 7 BBC C20 SAT-1, 8 BBC C20 BBC-2.

- 5 Repeat step 4 if you wish to block other channels.
- 6 Press the MENU button  to restore the normal TV picture.

Note: To unblock, push to yellow after selecting the channel to unblock in the 'Parental Lock' menu.

Using the Sleep Timer

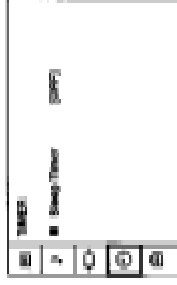
This function enables you to select a time period after which the TV automatically switches into standby mode.

- 1 Press the MENU button.
- 2 Push joystick **⬇** to blue or green to select the symbol **Ⓢ** on the menu screen then push to yellow.
- 3 Push to yellow.
- 4 Push to red or yellow to set time delay and press the joystick **⬆**.

OFF 0:30 1:00 1:30 2:30 4:00




One minute before the TV switches into standby mode, a message is displayed on the screen.

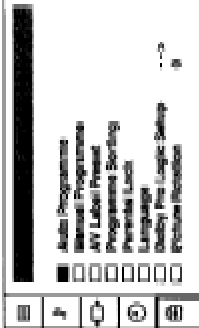
- 5** Cross the **MAX** button to restore the normal TV picture.



Skipping Programme Positions

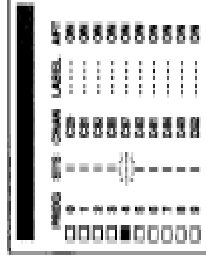
This function enables you to skip unused programme positions when selecting them with the PROGRAM+/- buttons. However, you can still watch the channel of the skipped programme position by using the number buttons.



- 1 Press the MENU button .
- 2 Push joystick  to blue or green to select the symbol  on the menu screen then push to yellow.
- 3 Push to blue or green to select 'Manual Programme' then push to yellow.


- 4 Push to blue or green to select the programme position you want to skip then push to yellow.

5 **Check the flow at every month**




... accounts in the SEC position.

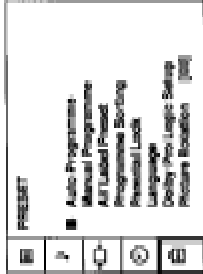




- 6** Press the joystick .
- 7** Repeat steps 4 to 6 to skip other programme positions.
- 8** Press the MENU button  to restore the normal TV picture.

Captioning a Station Name

Names for channels are usually automatically taken from teletext if available. You can however name a channel or an input video source using up to five characters (letters or numbers).

- 1 Press the MENU button .
- 2 Push joystick  to blue or green to select the symbol  on the menu screen then push to yellow.
- 3 Push to blue or green to select 'Manual Programme' then push to yellow.






- 4 Push to blue or green to select the channel you wish to caption then push to yellow repeatedly until the first element of the 'LABEL' position is highlighted.
- 5 Push to blue or green to select a letter or number and push to yellow (select '-' for a blank). Select other characters in the same way.
- 6 After selecting all five characters, press the joystick .
- 7 Repeat steps 4 to 5 to caption names for other channels.
- 8 Press the MENU button  to restore the normal TV screen.

MANUAL PROGRAMME PRESET				
STPS	CHAS	LABEL	UNIT	
1	SW	C 1	---	CH
2	SW	C 4	---	CH
3	SW	C 12	---	CH
4	SW	C 25	---	CH
5	SW	C 28	---	CH
6	SW	C 31	---	CH
7	SW	C 17	---	CH
8	SW	C 32	---	CH










Teletext

Most TV channels broadcast information via teletext. The index page of the broadcaster (usually page 100) gives you information on how to use the service.
Make sure you use a TV channel with a strong signal, otherwise teletext errors may occur.

Switching Teletext on and off

- 1 Select the channel which carries the teletext service you wish to view.
- 2 Press  to display teletext.
If no teletext signal is broadcast, the indication P00 is displayed on a black screen.
- 3 Input three digits for the page number using the number buttons .
The page counter searches for the page and after some seconds the page is displayed.
- 4 Press  to return to the normal TV picture.

Using Other Teletext Functions

To	Press
Access the next or preceding teletext page	  for the next page or   for the preceding page
Mix the mode	 when in teletext mode. Now the teletext page is superimposed on the TV programme. Press again to return to the normal teletext display.
Focus a teletext subpage	  Press once again to cancel.
Reveal hidden information (eg. answers to a quiz)	  Press once again to cancel.

Favourite page system

You can store up to four of your favourite selected pages per Teletext service. In this way you have quick access to the pages you frequently use.

Storing pages

1 Use the number buttons **1-4** to select the page you would like to store.

2 Press **↵** **2** twice.
The colour prompts at the bottom of the screen flash.

3 Push the joystick **⬆** to store the selected page.
The page is now stored on this colour.

Repeat steps 1 to 3 for the other 3 pages.

Displaying the Favourite Pages

1 Press **↵** **1**.

2 Push the joystick **⬆** to the colour on which the desired page is stored.

Make sure you press **↵** **1**, otherwise the normal Fastext facility operates.

Using Fastext

Only available, if the TV station broadcasts Fastext signals.

With Fastext you can access pages with one key stroke. When Fastext is broadcast, a colour-coded menu appears at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue marks on the Remote Commander.

Push the joystick **⬆** to the colour mark which corresponds to the colour-coded menu. The page is displayed after some seconds.

Connecting Optional Equipment

There is a wide range of optional equipment you can connect to your TV. Refer to the illustrations on the front flap page of this manual.

Symbol	Acceptable input signals	Available output signals
1	Normal audio / video and RGB	Audio / video from TV tuner
2 / 2	Normal audio / video and S video source	Audio / video from selected source
3, 3 3	Normal audio / video and S video	No output
	No inputs, Audio from selected source.	

About S video input

Video signals may be separated into Y (luminance) and C (chrominance) signals. Separating the two signals prevents interference and thus improves the picture quality.

Notes on connections

If the picture or sound is distorted, move the VCR away from the TV.

When connecting a monaural VCR, connect only the white jack to both the TV and VCR.

Selecting Input and Output Signals

This section explains how to view the video input picture and how to select the output signal. You can use direct access buttons \odot \oplus \ominus to select the input or the menu system to select input and output.

Selecting With Direct Access Buttons

Press \odot \oplus \ominus repeatedly.
Press \odot \oplus to restore the normal TV picture.

Symbol on the screen	Input Signal
\odot 1 \oplus	Audio/video through Euro AV connector \oplus
\odot 2 \oplus	RGB through Euro AV connector \oplus
\odot 2 \oplus	Audio/video through Euro AV connector \oplus
\odot 3 \oplus	S video through the phono jacks \oplus
\odot 3 \oplus	Audio/video through the phono jacks \oplus
\odot 3 \oplus	S video through the phono jacks \oplus


Selecting With the Video Connection Menu

- 1 Press the MENU button \oplus .
- 2 Push joystick \oplus to blue or green to select \odot for "Video Connection" then push to yellow.

VIDEO CONNECTION

\odot TV Screen [TV]

\oplus Output [AUX]



- 3 Push to blue or green to select input or output then push to yellow \oplus .
- 4 Push to blue or green repeatedly to select the desired input or output source then press the joystick \oplus .
- 5 Press the MENU button \oplus to restore the normal TV picture.

Note: If you select "Auto" for output, the output source automatically becomes the same as the desired input source.

Using AV Label Preset

This function enables you to label the input sources using up to five characters (letters or numbers).

- 1 Press the MENU button \oplus .
 - 2 Push joystick \oplus to blue or green to select the symbol \oplus on the screen then push to yellow.
 - 3 Push to blue or green to select "AV Label Preset" then push to yellow.
- AV LABEL PRESET

INPUT	LABEL
\oplus AV1
RGB
AUX
YCS
AUX
YCS
- 4 Push to blue or green to select the desired input source then push to yellow.
 - 5 Push to blue or green to select a letter or number then push to yellow (select " " for a blank).
Select other characters in the same way.
 - 6 After selecting all the characters, press the joystick \oplus .
 - 7 Repeat steps 4 to 6 label other input sources.
 - 8 Press the MENU button \oplus to restore the normal TV screen.

Remote Control of Other Sony Equipment

You can control other Sony remote controlled equipment using the buttons **Ⓢ** on the Remote Commander.

- 1 Set the VTR 1/2/3 MDIF selector according to the equipment
 VTR 1: Beta VCR
 VTR 2: S-VHS VCR
 VTR 3: VHS VCR
 MDIF: Video Disk Player

- 2 Use the buttons **Ⓢ** to operate the equipment.

Notes:

- If your video equipment has a COMMAND MODE selector, set this selector to the same position as the VTR 1/2/3 MDIF selector on the TV Remote Commander.
- If the equipment does not have a certain function, the corresponding button on the Remote Commander does not work.

Troubleshooting

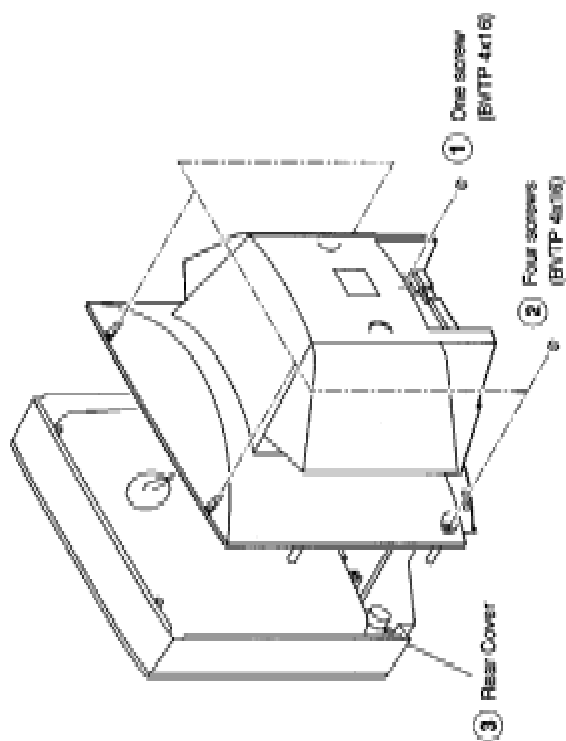
Here are some simple solutions to the problems which affect the picture and sound.

Problem	Solution
No picture (screen is dark), no sound	<ul style="list-style-type: none"> • Plug the TV in. • Press Ⓢ on the TV, (if Ⓢ indicator Ⓢ is on, press Ⓢ or a programme number Ⓢ on the Remote Commander) • Check the aerial connection. • Check if the selected video source is on. • Turn the TV off for 3 or 4 seconds then turn it on again using Ⓢ.
Poor or no picture (screen is dark) but good sound	<ul style="list-style-type: none"> • Press MENU Ⓢ to enter the 'PICTURE CONTROL' menu and adjust 'Picture', 'Brightness' and 'Colour'.
Poor picture quality when watching an RGB video source.	<ul style="list-style-type: none"> • Press Ⓢ Ⓢ repeatedly to select RGB.
Good picture but no sound	<ul style="list-style-type: none"> • Press Ⓢ + Ⓢ. • If Ⓢ is displayed on the screen, press Ⓢ.
No colour for colour programmes	<ul style="list-style-type: none"> • Press MENU Ⓢ to enter the 'PICTURE CONTROL' menu, select 'Reset' then press the joystick Ⓢ.
Remote Commander does not function.	<ul style="list-style-type: none"> • Replace the batteries.

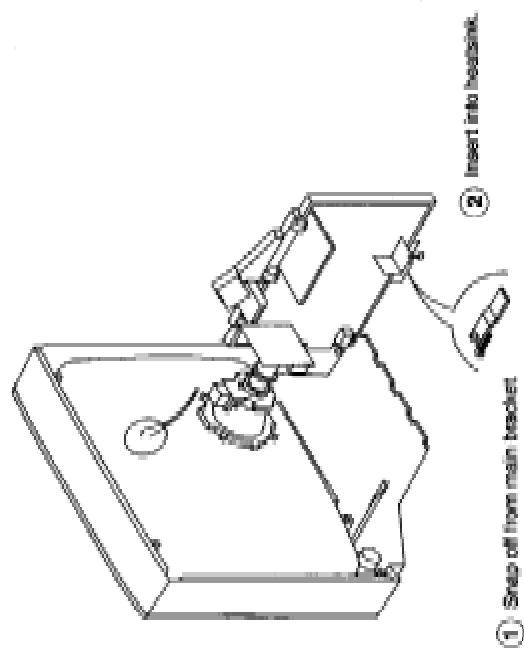
If you continue to have problems, have your TV serviced by qualified personnel. Never open the casing yourself.

SECTION 2 DISASSEMBLY

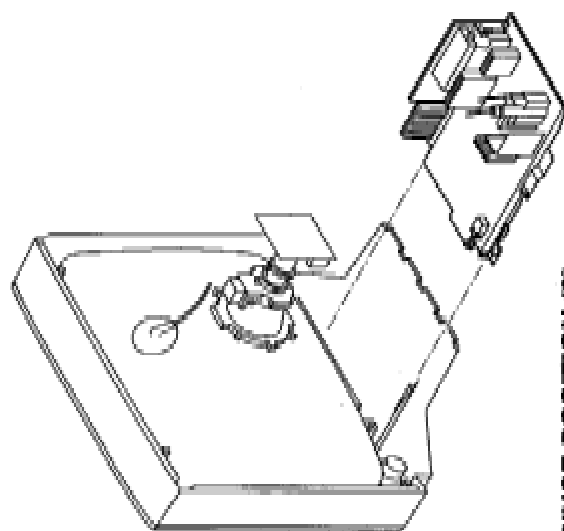
2-1. REAR COVER REMOVAL



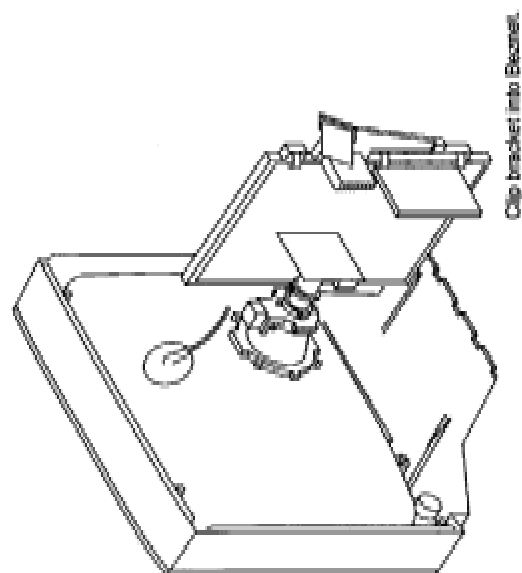
2-3-1. SERVICE POSITION (1)



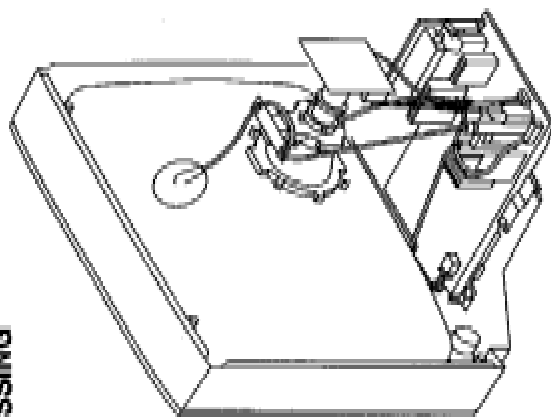
2-2. CHASSIS ASSY REMOVAL



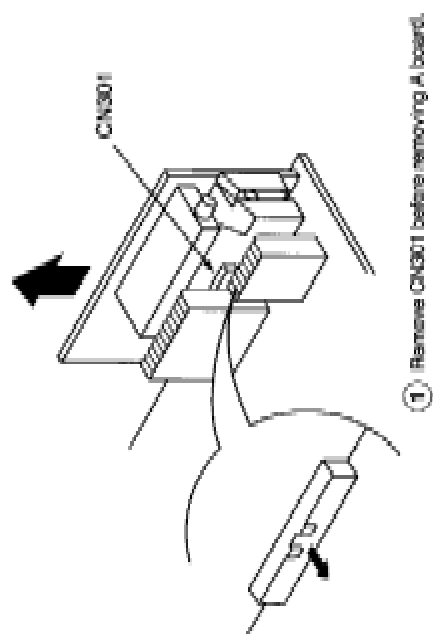
2-3-2. SERVICE POSITION (2)



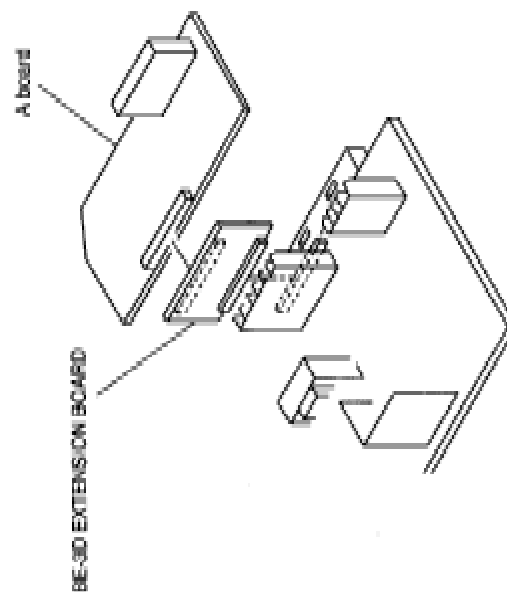
2-4. WIRE DRESSING



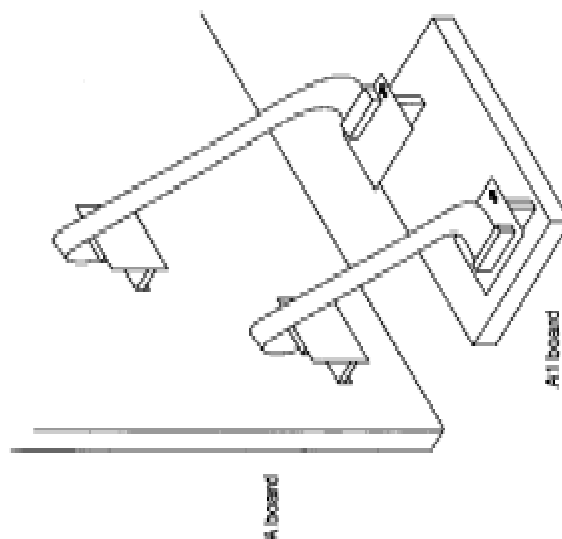
2-5. A BOARD REMOVAL



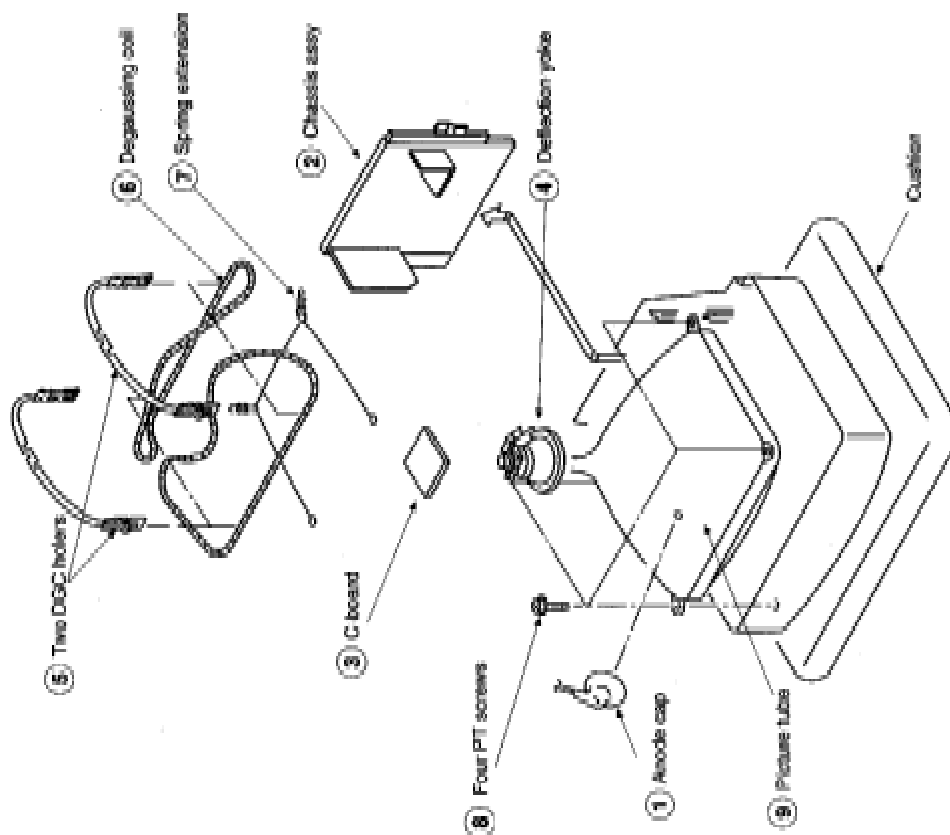
2-6. A EXTENSION BOARD



2-7. A1 EXTENSION BOARDS



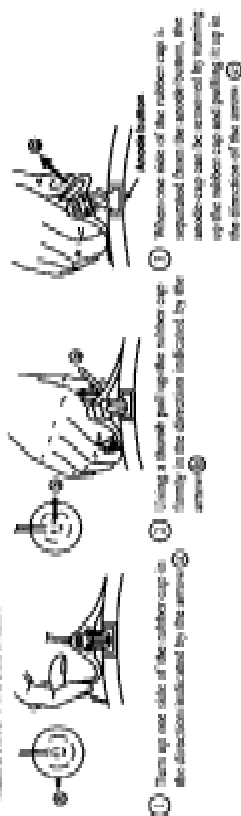
2-8. PICTURE TUBE REMOVAL



• REMOVAL OF ANODE-CAP

Note: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon point on the CRT, after removing the anode.

• REMOVING PROCEDURES



• HOW TO HANDLE AN ANODE-CAP

- ① Don't damage the surface of anode-cap with sharp shaped material !
- ② Don't press the rubber hardly not to hurt inside of anode-caps !
- ③ A metal fitting called as shutter-hook terminal is built into the rubber.
- ④ Don't turn the foot of rubber over hardly !
- ⑤ The shutter-hook terminal will stick out or damage the rubber...



REMOVAL AND REPLACEMENT OF THE MAIN-BRACKET BOTTOM PLATES.

(1) REMOVING THE PLATES

In the event of servicing being required to the solder side of the D Board printed circuit, the bottom plates fitted to the main chassis bracket require to be removed. This is performed by cutting the gates with a sharp wire cutter at the locations shown and indicated by arrows.

Note : There are 5 plates fitted to the main bracket and secured by 4 or 6 gates. Only remove the necessary plate to gain access to the circuit board.

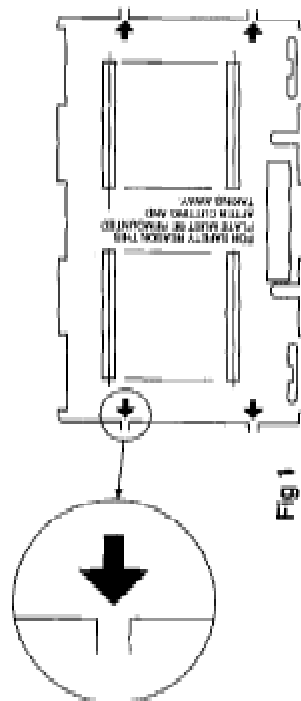


Fig 1

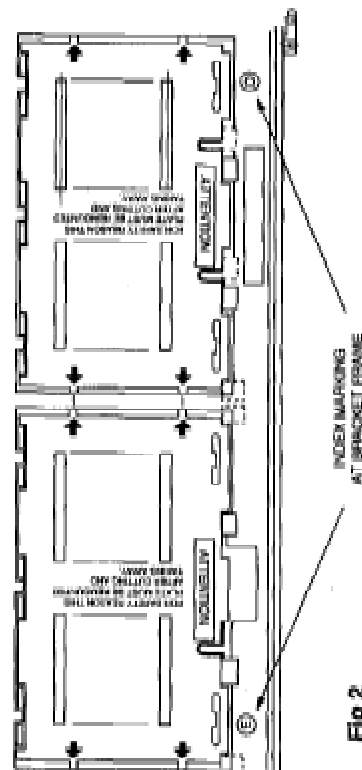


Fig 2

In the event of the plates requiring to be removed at a later stage, this can be achieved by inserting a screwdriver in the snap-recess indicated as in Fig 4 and lifting out.

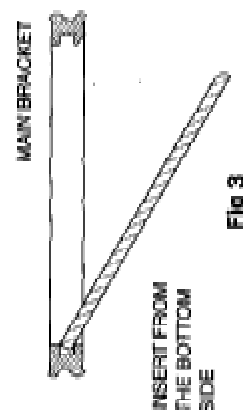


Fig 3

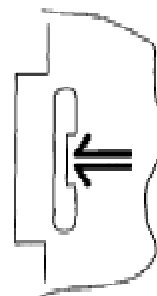


Fig 4

SECTION 3

SET - UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches to these settings :

1. Contrast 80% (or remote control normal)
 2. Brightness 50%

- Carry out the following adjustments in this order :

1. Beam landing
2. Convergence
3. Focus
4. White balance

Note: Testing equipment required.

1. Color bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

Preparation:

- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input the white signal with the pattern generator.
 CONTRAST } normal
 BRIGHTNESS }
2. Set the pattern generator raster signal to red.
3. Move the deflection yoke forward and adjust with the purity control so that the red is at the centre and the blue and the green take up equally sized areas on each side. (See Fig. 3-1 - 3-3)
4. Move the deflection yoke forward and adjust so that the entire screen becomes red. (See Fig. 3-1)
5. Switch the raster signal to blue, then to green and verify the condition.
6. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
7. If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Fig. 3-4)

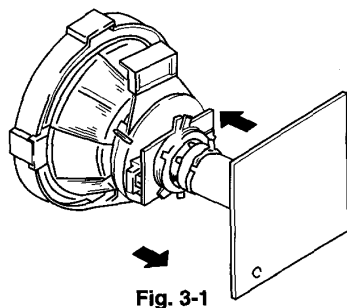


Fig. 3-1

Fig. 3-2

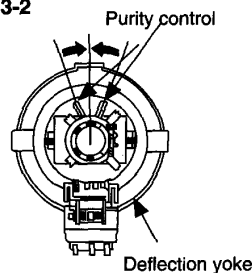


Fig. 3-3

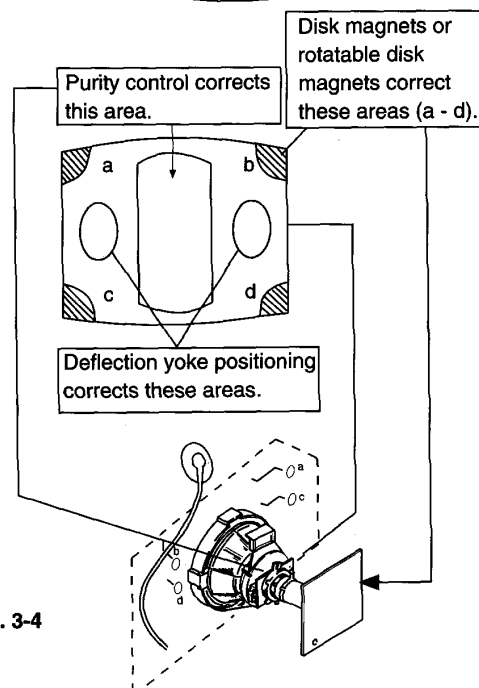
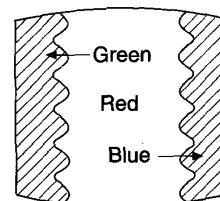


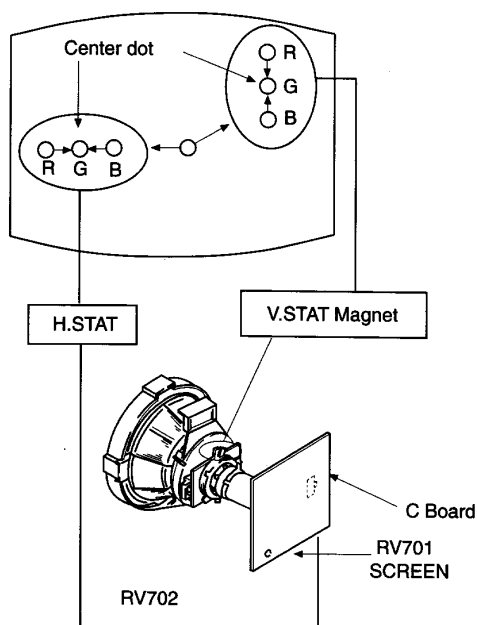
Fig. 3-4

3-2. CONVERGENCE

Preparation:

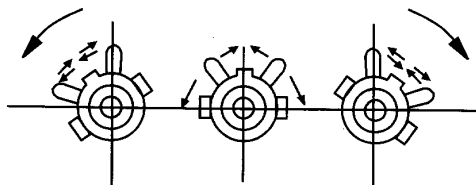
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide a dot pattern.

(1) Horizontal and vertical static convergence

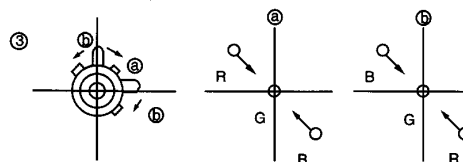
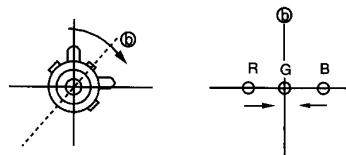
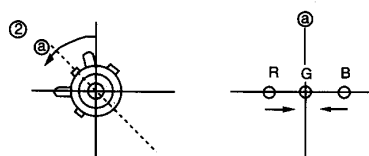
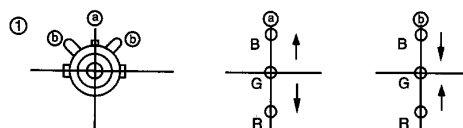


1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the centre of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the centre of the screen.
3. If the H.STAT variable resistor cannot bring the red, green, and blue points together at the centre of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.
(In this case, the H.STAT variable resistor and the V.STAT magnet influence each other)

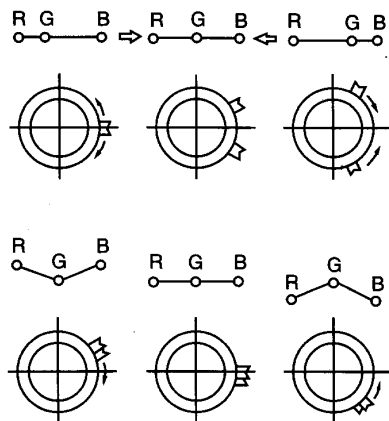
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



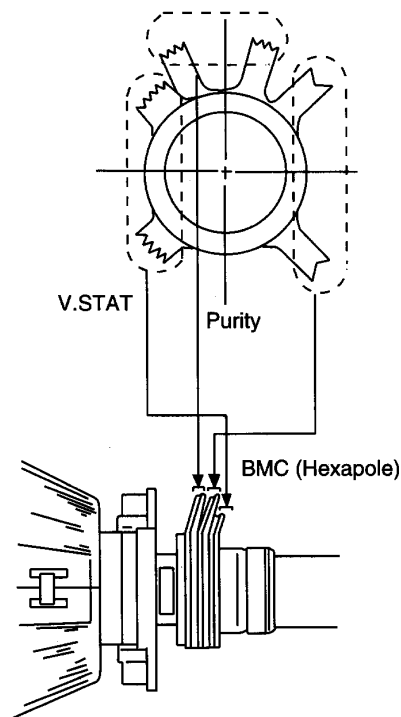
4. If the V.STAT magnet is moved in the direction of the (a) and (b) arrows, the red, green, and blue points move as shown below.



- Operation of BMC (Hexapole) Magnet



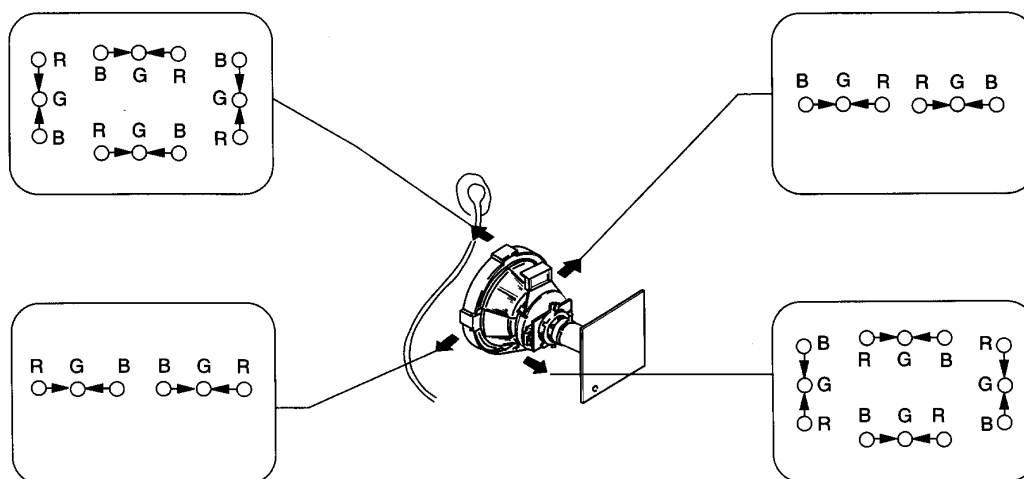
- The respective dot position resulting from moving each magnet interact, so be sure to perform adjustment while tracking.
Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the centre of the screen (by moving the dots in the horizontal direction).



(2) Dynamic convergence adjustment.

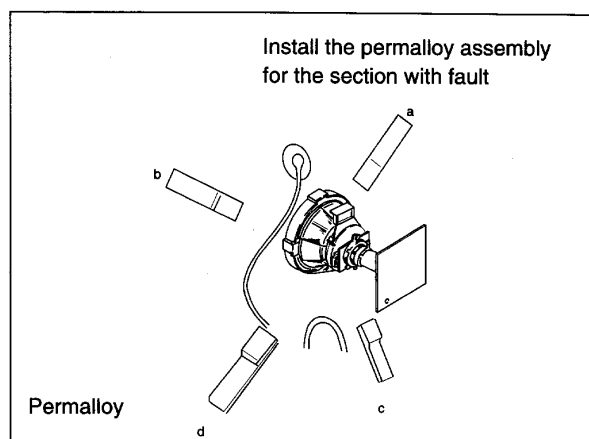
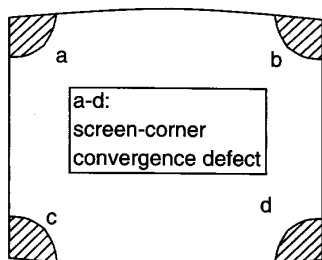
Preparation:

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.
1. Slightly loosen the deflection yoke screws.
 2. Remove the deflection yoke spacer.
 3. Move the deflection yoke as shown in the figure below and optimize the convergence.
 4. Tighten the deflection yoke screws.
 5. Re-install the deflection yoke spacer.



(3) Screen corner convergence.

If you are unable to adjust the corner convergence properly, correct them with the use of permalloy assemblies.

**3-3. WHITE BALANCE****G2 Setting**

1. Switch the set into AV mode (apply no signal to the AV connectors).
2. Connect a Volt Meter to Test Point 1 on the A board.
3. Adjust RV01 to obtain a voltage of $3.0V \pm 0.3V$.

White balance adjustment

1. Input an all white signal from the pattern generator.
2. Enter into the service mode.
3. Enter into Picture Adjustment service menu.
4. Select sub-contrast and adjust to 7.
5. Select the Green Drive and adjust so that the white balance becomes optimum.
6. Select the Blue Drive and adjust so that the white balance becomes optimum.
7. Press the TV button to return to TV operation.

PICTURE ADJUSTMENT

AFC mode	1
REF position	3
SCP BGR	1
SCP BGF	1
Trap Fo	7
Sub contrast	Adj
Sub colour	Adj
Sub brightness	Adj
Sub hue	Adj
Green drive	Adj
Blue drive	Adj
Green cutoff	Adj
Blue cutoff	Adj
Gamma	0
Pre / overshoot	0
Y delay	5

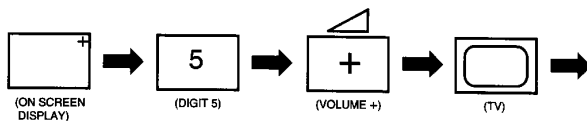
SECTION 4 CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied remote commander RM-862.

HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power switch of the set and enter into standby mode.
2. Press the following sequence of buttons on the Remote Commander.





"TT--" will appear in the top right corner of the screen. Other status information will also be displayed.

3. Press MENU on the commander to obtain the following menu on the screen.

TEST MENU

> Picture adjustment
Geometry
Wide
MSP
IC status
Current TV status

4. Move to the corresponding adjustment using the  button on the commander.
5. Move the button to the right  to enter the selected adjustment.
6. Turn off the power to quit the service mode when adjustments are completed.

PICTURE ADJUSTMENT

AFC mode	1
REF position	2
SCP BGR	1
SCP BGF	1
Trap Fo	0
Sub contrast	Adj
Sub colour	Adj
Sub brightness	Adj
Sub hue	Adj
Green drive	Adj
Blue drive	Adj
Green cutoff	Adj
Blue cutoff	Adj
Gamma	0
Pre / overshoot	0
Y delay	3

GEOMETRY ADJUSTMENT

V Size	Adj
V Position	Adj
S Correction	Adj
V Linearity	Adj
H Size	Adj
H Position	Adj
Pin Amp	Adj
Pin Phase	Adj
AFC Bow	Adj
AFC Angle	Adj
EHT V	Adj
EHT H	Adj
Corner Pin	Adj

WIDE

V Aspect	47
V Scroll	31
Upper V Lin	0
Lower V Lin	0
Left Blanking	1
Right Blanking	11

MSP

AGC ON/OFF	ON
Constant gain CDB	0
FM prescale FMP	36
Zwei mono-st WHI	36
Zwei st-mono WLO	18
Zwei mono-bi WMH	36
Zwei bi-mono WLO	18
Time zwei WML	41
Fawct limit	10
Fawct soll init FAW	12
Fawer tol	2
Nicam Err Max CCT	10
Nicam Err Min	0
Nicam Prescale NIP	97
Time Nicam	31
Carrier mute CRM	OFF
Audio clock ACO	HIZ
Scart prescale	25
Scart volume	64

IC STATUS (CXA2000 / CXA2040)**CXA2000**

H lock	1
IKR	1
VNG	0
X-RAY	0
Colour system	3
CV1 Sync	1

CXA2040

Sync sep	1
S1 mode pin	01
S2 mode pin	01

TUNER

Tuner status	01101011
--------------	----------

TV STATUS

Text system	C TEXT/TV TEXT
Dolby	NO/YES
Text language set	WEST/EAST/RUSSIAN
Menu language set	WEST/EAST/RUSSIAN
Destination	B/D/U/K/L/E/A/R
Scart 16:9	OFF/ON
RGB priority	OFF/ON
Ageing	OFF/ON
Size	29/25
Colour trap sw	SECAM/ALL
Velocity mod	ON/OFF
AFT STATUS	WINDOW/HIGH/LOW

SUB BRIGHTNESS ADJUSTMENT

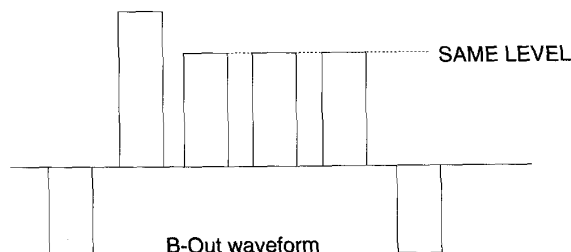
1. Input a Phillips pattern.
2. Set the picture control to minimum.
3. Enter into the Picture Adjustment Service Menu.
4. Adjust the Sub-Brightness data so that there is barely a difference between the 0 IRE and 10 IRE signal.

SUB CONTRAST ADJUSTMENT

1. Input a video that contains a small 100% area on a black background.
2. Set the picture control to maximum.
3. Connect an oscilloscope to pin 3 of CN301 (A board).
4. Enter into the Picture Adjustment Service Menu.
5. Adjust the Sub-contrast data to obtain a black to white amplitude of 2.50 volts.

SUB COLOUR ADJUSTMENT

1. Receive a PAL Colour Bar video signal.
2. Connect an oscilloscope to pin 3 of CN301 (A board).
3. Enter into the Picture Adjustment Service Menu.
4. Adjust the sub colour data so that cyan, magenta and blue colour bars are of equal height.



NOTE: The data shown in the TV STATUS table is dependant on destination, screen size and country.

SYSTEM B/G, D/K, I & L I.F. ADJUSTMENT

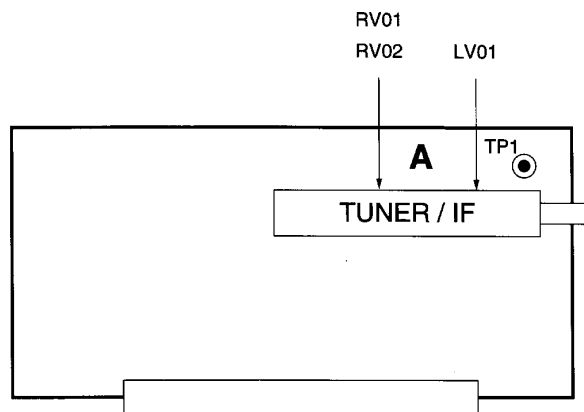
1. Input an off air signal of between 60-100dBuV / 75 ohm terminated, via the tuner socket.
2. Enter into the I.F. adjustment service mode (i.e. " TT 59 ") to fix the I.F. frequency to 38.9 MHz.
3. Enter into the service mode and select "Current TVStatus".
4. Adjust the I.F. coil (LV01) until the "AFT Status" indicates a " Window " condition.

SYSTEM L BAND 1 I.F. ADJUSTMENT

1. Input an off air signal of between 60-100dBuV / 75 ohm terminated, via the tuner socket.
2. Enter into the I.F. adjustment service mode (i.e. " TT 59 ") to fix the I.F. frequency to 34.2 MHz.
3. Enter into the service mode and select "Current TVStatus".
4. Adjust the RV02 until the "AFT Status" indicates a " Window " condition.

TUNER AGC ADJUSTMENT

1. Receive a signal of 63dBuV / 75 ohm terminated via the tuner socket.
2. Measure the voltage at test point 1 (A board).
3. Adjust RV01 to obtain a voltage of $3.0V \pm 0.3V$.



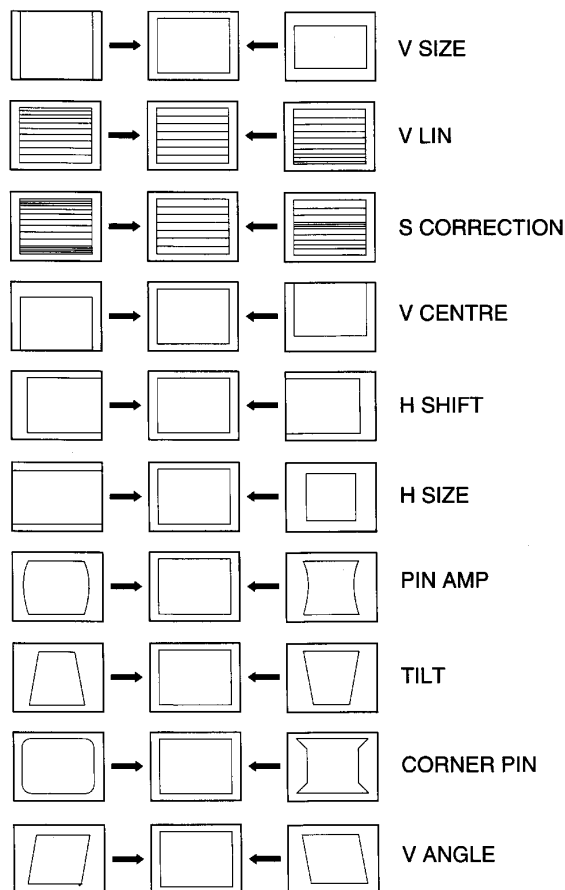
- A Board component side -

DEFLECTION SYSTEM ADJUSTMENT

1. Enter into the Geometry Adjustment Service Menu.
2. Select and adjust each item in order to obtain the optimum image.

GEOMETRY ADJUSTMENT

V Size	Adj
V Position	Adj
S Correction	Adj
V Linearity	Adj
H Size	Adj
H Position	Adj
Pin Amp	Adj
Pin Phase	Adj
AFC Bow	Adj
AFC Angle	Adj
EHT V	Adj
EHT H	Adj
Corner Pin	Adj



4-2. TEST MODE 2:

Is available by pressing Test button twice, OSD " TT " appears. The functions described below are available by pressing the two numbers. To release the Test mode 2, press 0 twice, or switch the TV into stand-by mode.

00	Switch test mode 2 off
01	Picture maximum
02	Picture minimum
03	Volume 30%
04	Set service menu mode
05	Set production menu mode
06	Volume 80%
07	Set ageing condition
08	Set shipping condition
09	Language reset
10	No function
11	Adjustment without OSD
12	Dummy
13	Display TV configuration
14	Forced AV 6:9 mode
15	Reset LPM from ROM data
16	copy LPM to reset memory
17	Preset label for AV sources
18	RGB priority on/off
19	Clear all preset labels
20	No function
21	Sub contrast
22	Sub colour
23	Sub brightness
24	Set destination = U
25	Set destination = D
26	Set destination = B
27	Set destination = K
28	Set destination = L
29	Set destination = E
30	No function
31	Set destination =A
32	Dummy
33	Auto AGC
34	Dummy
35	Manual AGC adjust

36-40	Dummy
41	Re-initialise NVM
42	Production use only
43	Initialise geometry settings
44	Initialise all favourite pages = 100
45	Channel locks = off
46	Dealer commander mode
47	Default MSP settings
48	Restore NVM test byte
49	Delete NVM test byte
50-60	No function
61	Turn on Dolby Pro Logic mode
62	White noise to left speaker
63	White noise to right speaker
64	White noise to centre speaker
65	White noise to rear speaker
66	Set standard stereo mode
67	Set Pro Logic normal mode
68	Set Pro Logic wide mode
69	Set Pro Logic phantom mode
70	No function
71	Picture rotation on/off
72	Dolby register settings
74	No function
75	Reset picture colour balance
76	Reset picture geometry
77	Reset sound settings
78	Reset error codes in the NVM
79-99	No function

4-3. BE-3D SELF DIAGNOSTIC SOFTWARE

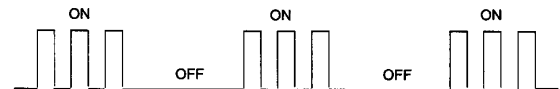
The identification of errors within the BE-3D chassis is triggered in 1 of 2 ways :- 1: Bus busy or 2: Device failure to respond to IIC. In the event of one of these situations arising the software will first try to release the bus if busy (Failure to do so will report with continuous flashing LED) and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the led (Series of flashes which must be counted) See Table 1, non fatal errors are reported with this method.

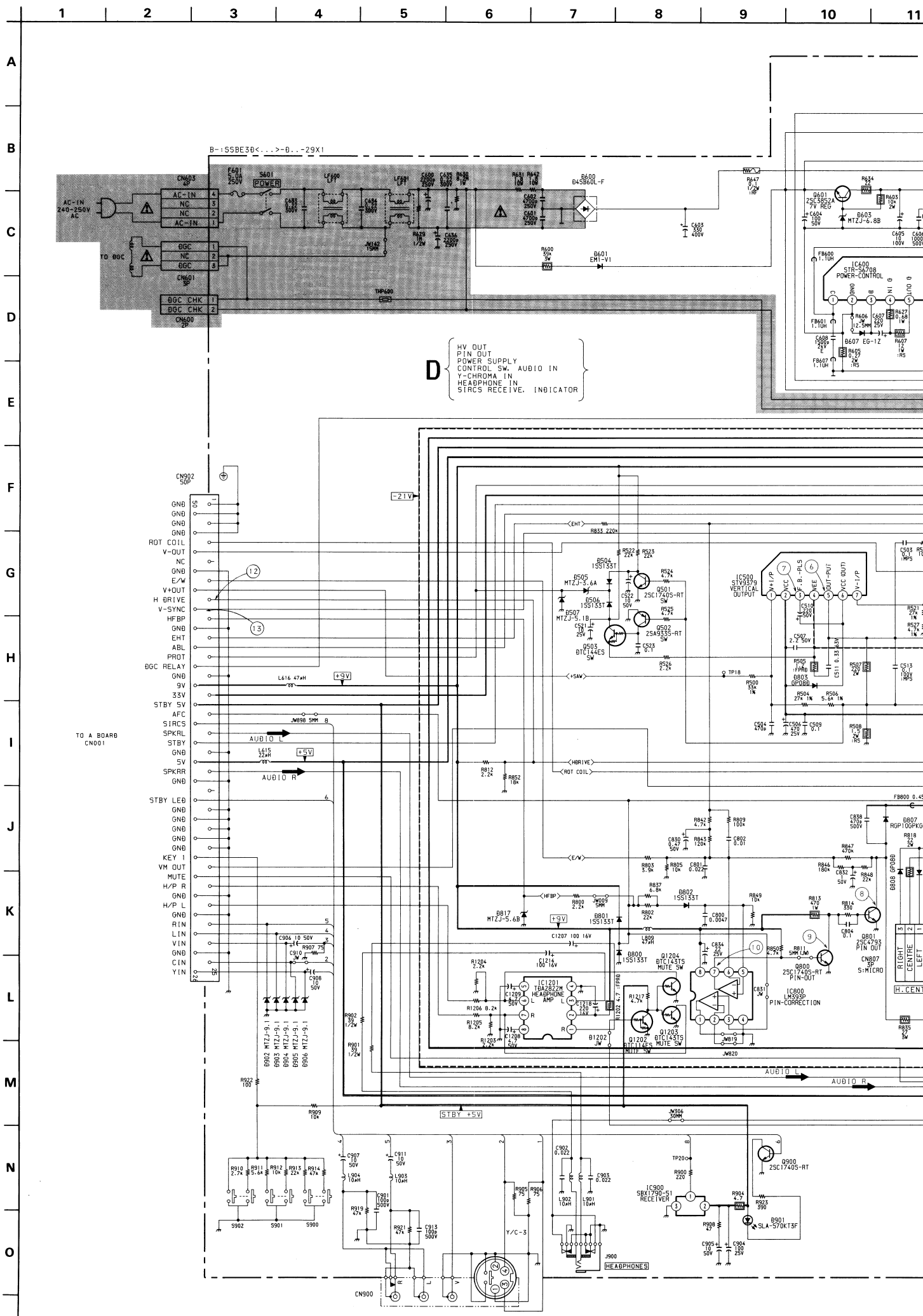
Table 1

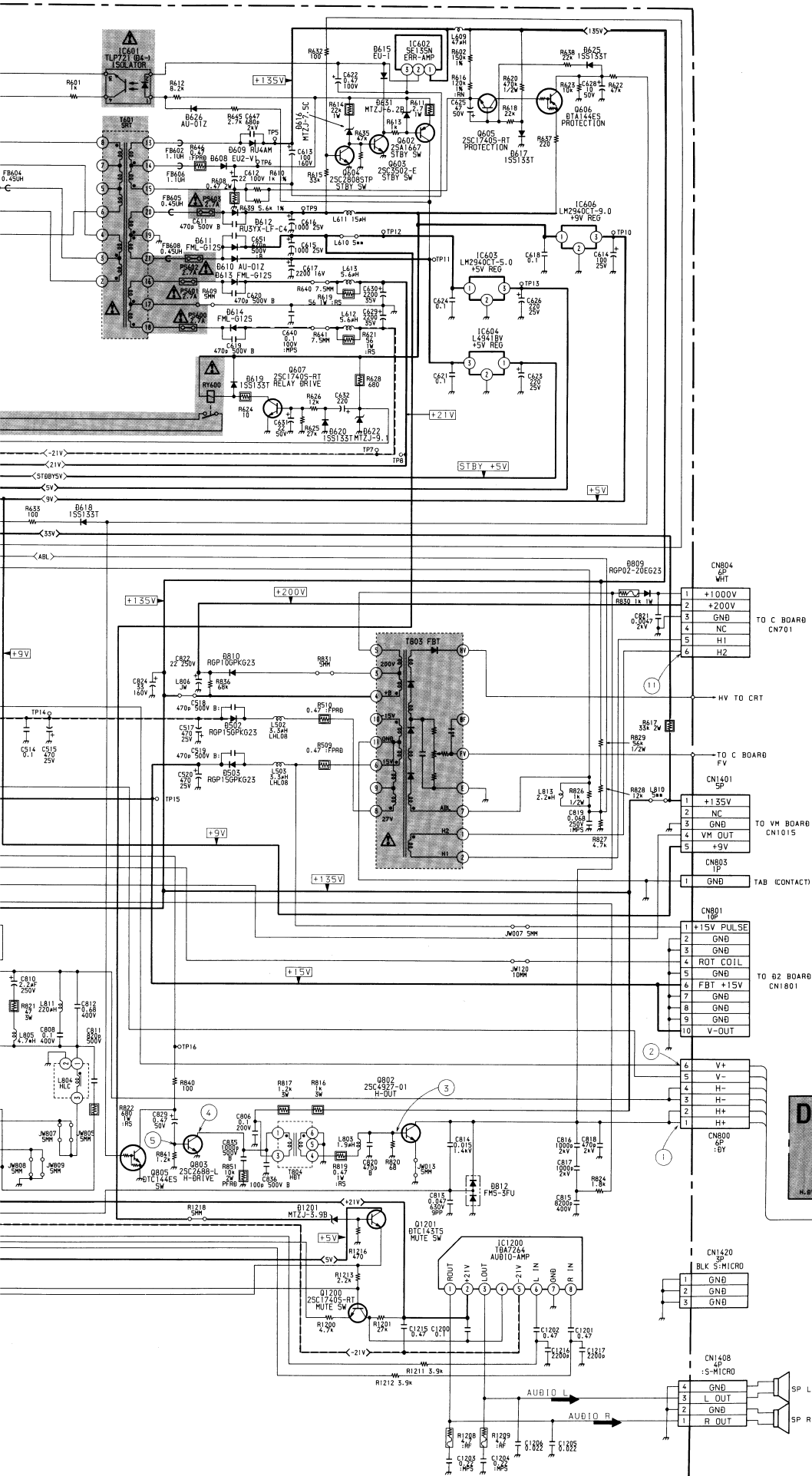
ERROR	LED ERROR COUNT
Protection circuit trip < ANY TIME >	02
IIC SCL LOW < POWER UP ONLY >	03
IIC SDA LOW < POWER UP ONLY >	04
IIC SDA & SCL LOW < POWER UP ONLY >	05
Jungle/Chroma controller no acknowledge < POWER UP ONLY >	06
Video Switch no acknowledge < POWER UP ONLY >	07
Tuner no acknowledge	08
MSP no acknowledge	09
NVM no acknowledge	10
M3L TXD LOW < POWER UP ONLY >	11
M3L RXD LOW < POWER UP ONLY >	12
M3L ENABLE LOW < POWER UP ONLY >	13
M3L TXD & RXD LOW < POWER UP ONLY >	14
Compact Text test fail < POWER UP ONLY >	15
AV switch cannot power on reset	16
Cannot initialise jungle	17
NVM acknowledge fail after initialisation	18
Multiple devices with no acknowledge < POWER UP ONLY >	19
Compacttext run-time failure	20
AVSWITCH response failure after power up	21
JUNGLE/CHROMA controller response failure after power up	22
CompactText does not respond	23

Flash Timing Example : e.g. error number 3.

Stby LED





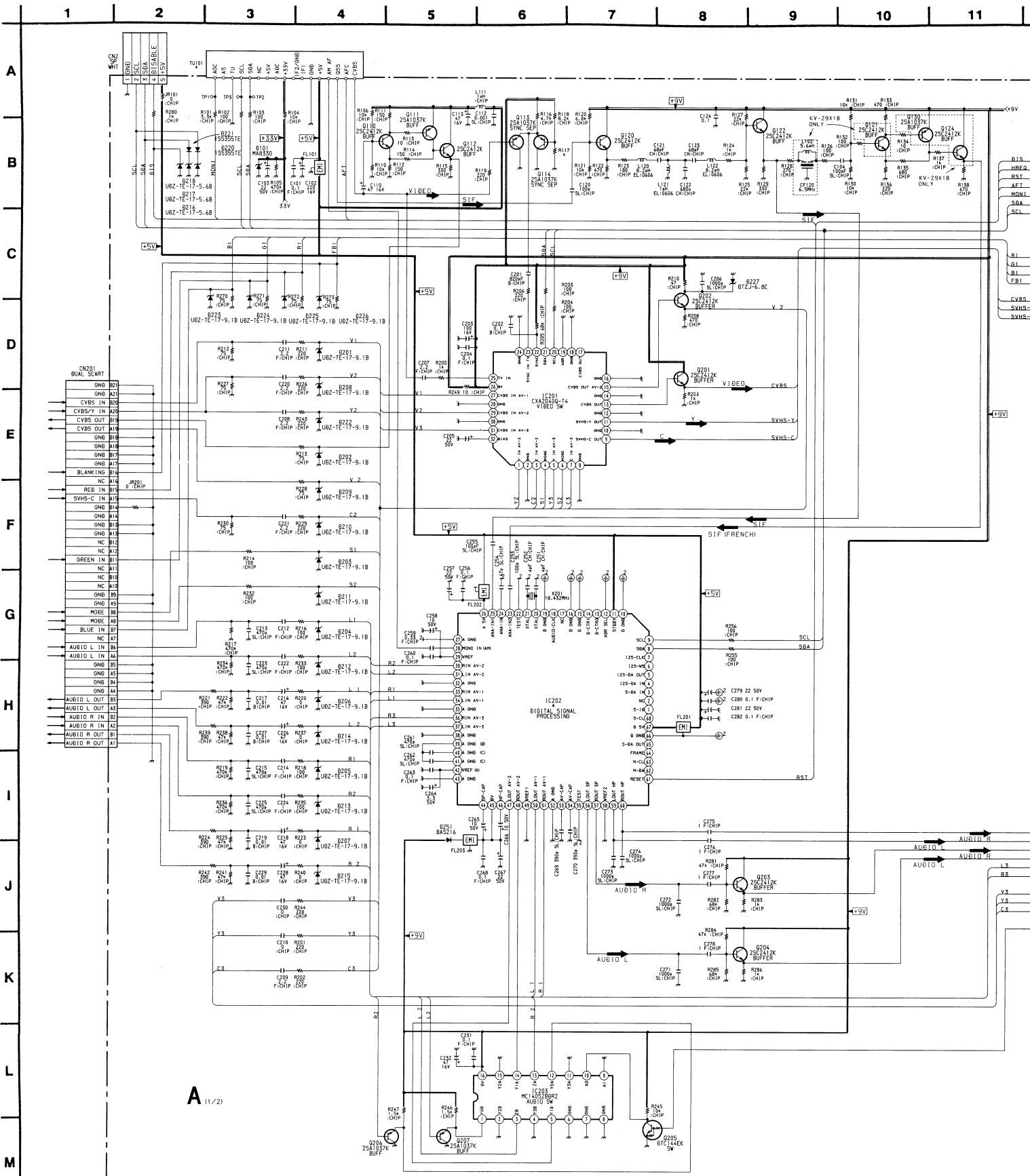


D BOARD
TRANSISTOR VOLTAGE TABLE

Transistor Voltage Table			
Ref No	B Base	C Collector	E Emitter
Q501	-0.1	0.2	-
Q502	0.1	-5.8	-
Q503	-5.8	-12.0	-12.0
Q602	72.0	7.5	72.7
Q603	0	72.0	-
Q604	0.7	-	-
Q605	0.5	-	0.3
Q606	-	-	12.0
Q607	-	12.0	-
Q800	0.2	3.1	-
Q801	0.3	17.0	-
Q802	-0.2	143.3	-
Q803	-0.6	99.8	-
Q805	-	3.6	-
Q900	-	5.4	-
Q1200	2.9	21.5	4.6
Q1201	3.4	5.0	3.0
Q1202	2.8	-	-

D BOARD IC VOLTAGE TABLE

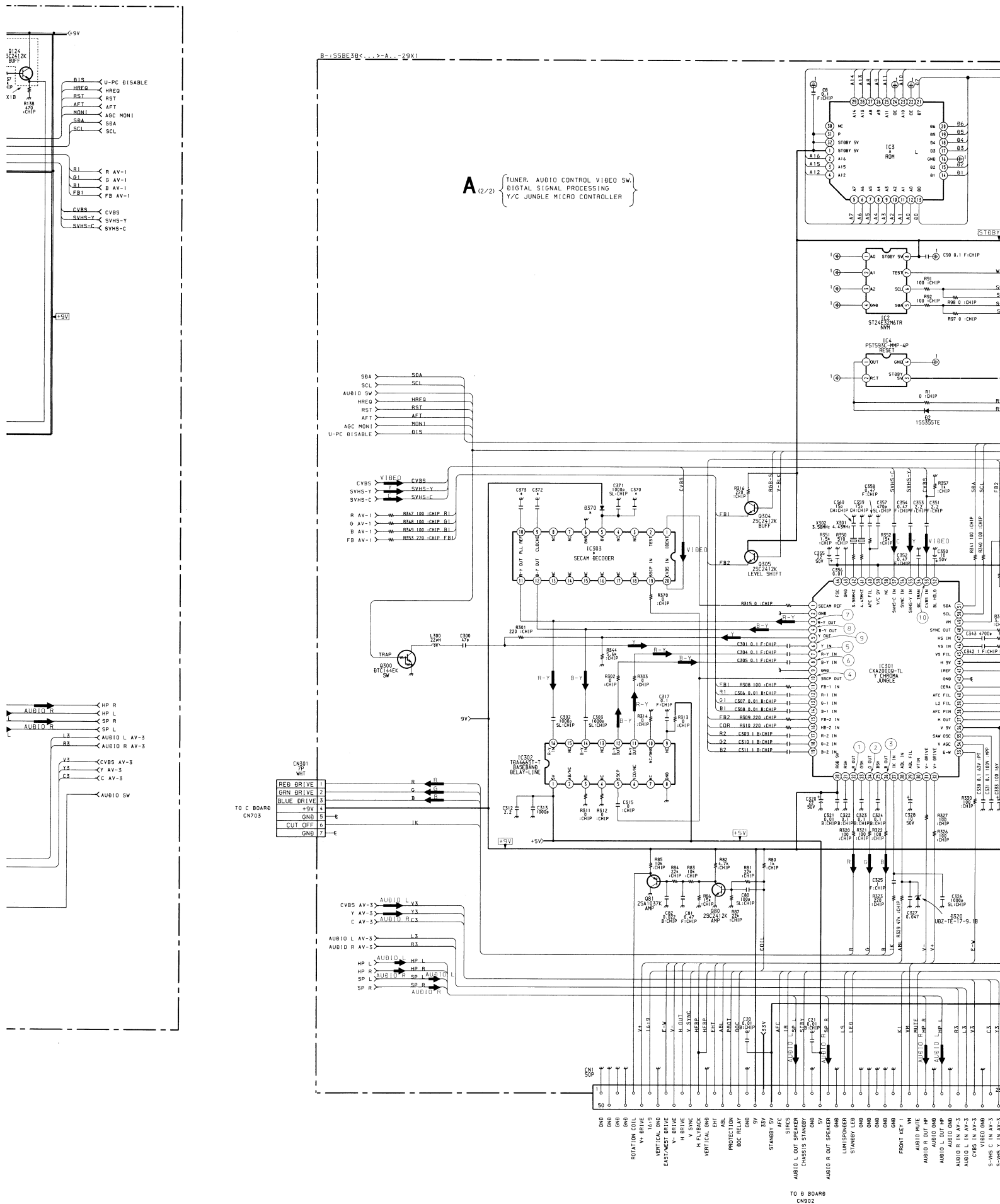
IC Voltage Table		
Ref No	Pin No	Voltage (V)
IC500	1	1.5
	2	15.0
	3	-12.3
	4	-14.0
	5	0.1
	6	15.2
	7	1.4
IC600	1	170.0
	2	-62.4
	3	-62.6
	4	-62.2
	5	-62.0
	6	-62.6
	7	-62.4
	8	-62.0
	9	-58.0
IC601	1	64.3
	2	63.0
	3	-62.5
	4	-58.6
IC602	1	135.0
	2	63.2
	3	-0.1
IC800	3	0.9
	5	1.5
	6	2.0
	7	0.2
	8	9.0
IC1200	2	21.7
	4	21.5
	5	-21.7
IC1201	1	4.0
	2	9.0
	3	4.0
	5	0.5
	8	0.5



B--SSBE50<...>A...-29X1

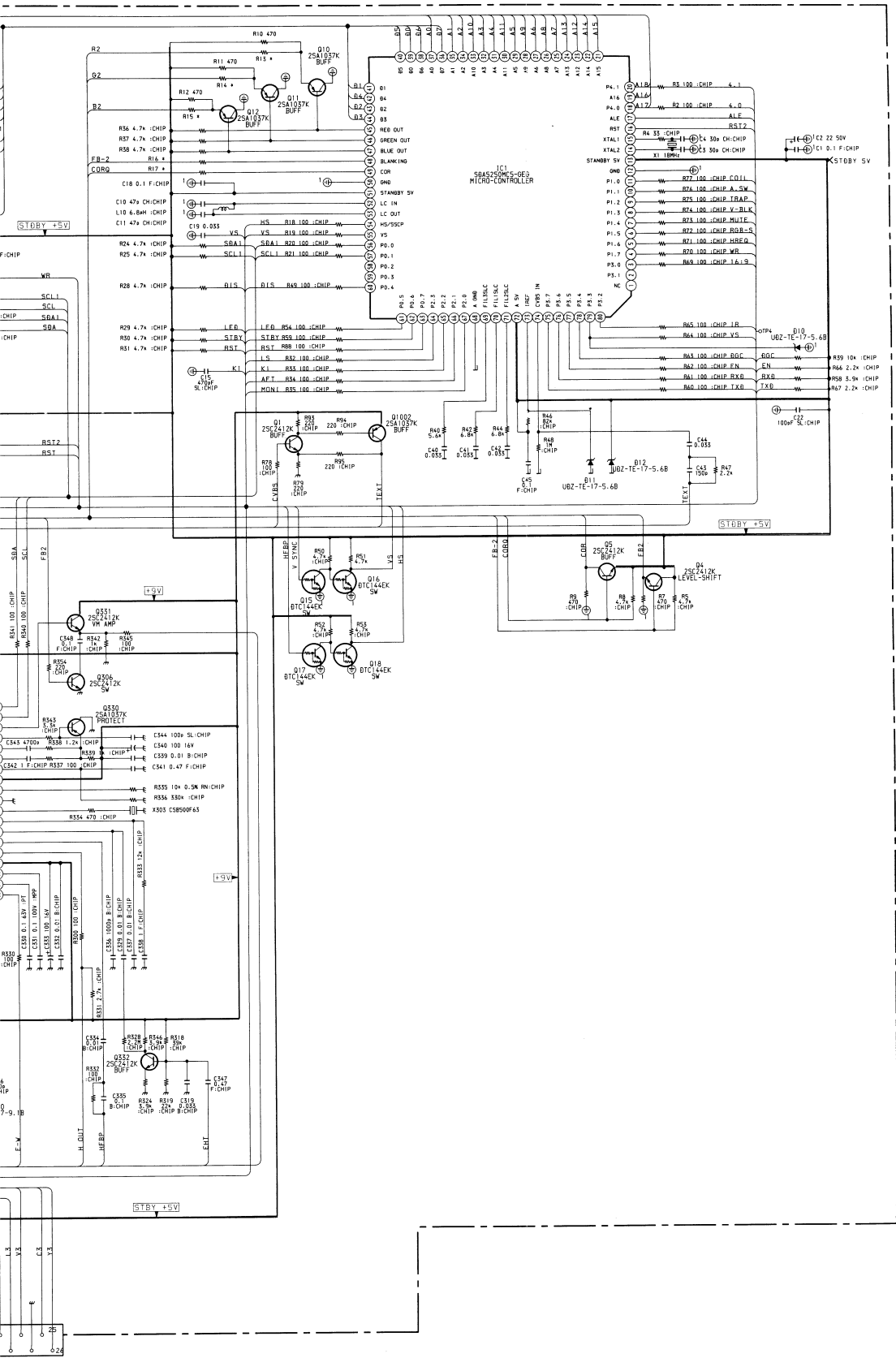
A BOARD * MARK

Ref. No.	Model	29X1A	29X1B	29X1D	29X1E	29X1K	29X1L	29X1R	29X1U
C370	—	—	2.2UF	2.2UF	2.2UF	2.2UF	—	2.2UF	—
C372	—	—	0.1UF	0.1UF	0.1UF	0.1UF	—	0.1UF	—
C373	—	—	0.22UF	0.22UF	0.22UF	0.22UF	—	0.22UF	—
D370	—	BAS216	BAS216	BAS216	BAS216	—	—	BAS216	—
IC3	TMS27PC010A-15FMBE101	TMS27PC010A-15FMBE101	TMS27PC010A-15FMBE101	TMS27PC010A-15FMBE101	TMS27PC010A-15FMBE101	TMS27PC010A-15FMBE101	TMS27PC010A-15FMBE101	TMS27PC010A-15FMBE101	TMS27PC010A-15FMBE101
IC202	MSP3400C-PS	MSP3410-15	MSP3400C-PS	MSP3410-15	MSP3400C-PS	MSP3410-15	MSP3400C-PS	MSP3400C-PS	MSP3410-15
IC303	—	TDA8395T	TDA8395T	TDA8395T	TDA8395T	—	—	TDA8395T	—
R13	150	—	150	150	150	150	150	150	150
R14	150	—	150	150	150	150	150	150	150
R15	150	—	150	150	150	150	150	150	150
R16	100	—	100	100	100	100	100	100	100
R17	100	—	100	100	100	100	100	100	100
R117	1.8K	1.8K	1.8K	1.8K	1.8K	1.8K	1.8K	1.8K	2.0K
TU101	TUVIF (AEP)	TUVIF (FR)	TUVIF (AEP)	TUVIF (AEP)	TUVIF (AEP)	TUVIF (AEP)	TUVIF (AEP)	TUVIF (AEP)	TUVIF (UK)



A (2/2) { TUNER, AUDIO CONTROL VIDEO SW. DIGITAL SIGNAL PROCESSING Y/C JUNGLE MICRO CONTROLLER }

TO 6 BOARD CN902



A (1/2) BOARD IC VOLTAGE TABLE

IC Voltage Table		
Ref No	Pin No	Voltage (V)
IC201	13	4.4
	15	4.4
	20	3.5
	21	2.7
	22	4.9
	23	4.4
	24	0
	25	4.4
	26	8.8
	32	4.4
	4	2.8
	6-7	0.1
IC202	8	3.0
	9	3.6
	11	4.7
	13	4.7
	20-21	2.4
	23	0.2
	25	1.5
	26	4.8
	28	3.8
	29	2.6
	39-42	3.8
	44	7.1
	45	8.0
	46	7.1
	47-48	3.8
	53-54	3.8

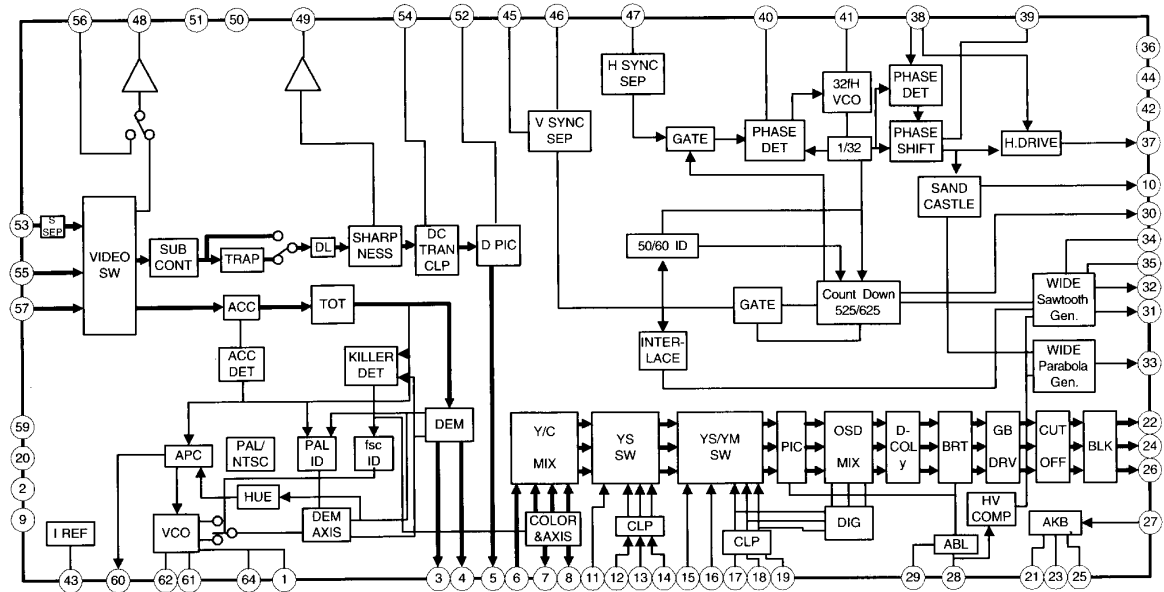
A (2/2) BOARD TRANSISTOR VOLTAGE TABLE

Transistor Voltage Table				
Ref No	B Base	C Collector	E Emitter	
Q1	3.7	4.8	3.1	
Q4	0.1	4.8	-	
Q5	0.7	4.8	4.0	
Q15	-	4.3	-	
Q16	4.3	0.2	-	
Q17	4.0	3.5	-	
Q18	3.5	0.7	-	
Q80	2.6	2.2	-	
Q81	2.4	-	3.0	
Q304	-	4.8	-	
Q305	-	4.8	-	
Q330	4.5	-	5.1	
Q331	6.3	8.8	5.7	
Q332	3.1	8.8	2.5	
Q1001	4.4	-	-	

A (1/2) BOARD TRANSISTOR VOLTAGE TABLE

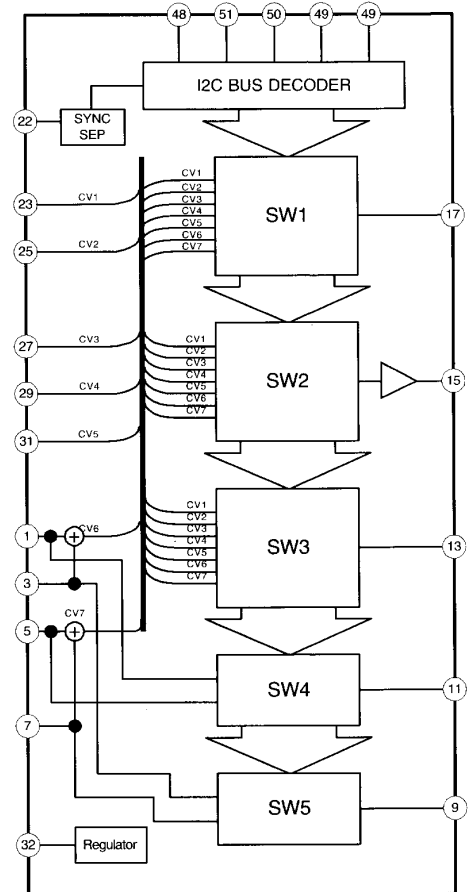
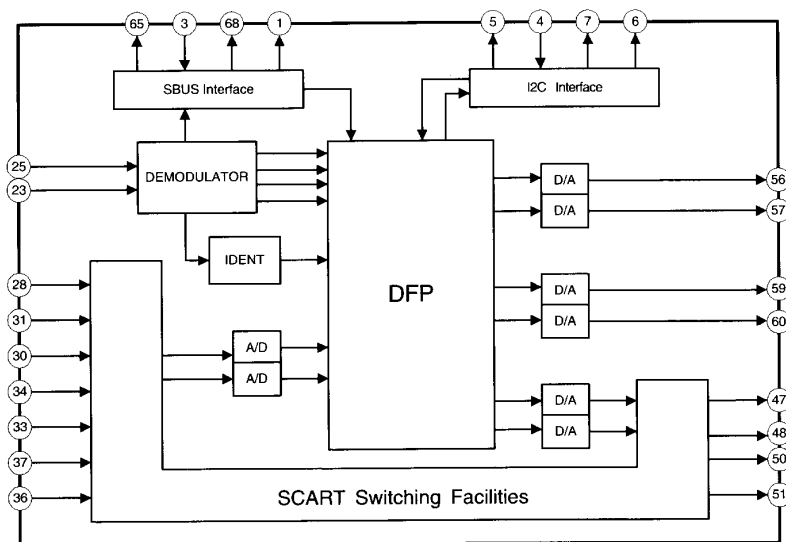
Transistor Voltage Table			
Ref No	B Base	C Collector	E Emitter
Q110	1.8	8.2	1.2
Q112	1.5	8.8	0.8
Q113	1.8	-	-
Q114	5.4	6.0	-
Q120	84.3	8.8	3.7
Q121	1.5	5.4	0.9
Q122	5.4	8.8	4.7
Q124	-	8.8	-
Q201	4.4	8.8	3.7
Q202	4.4	8.8	3.7

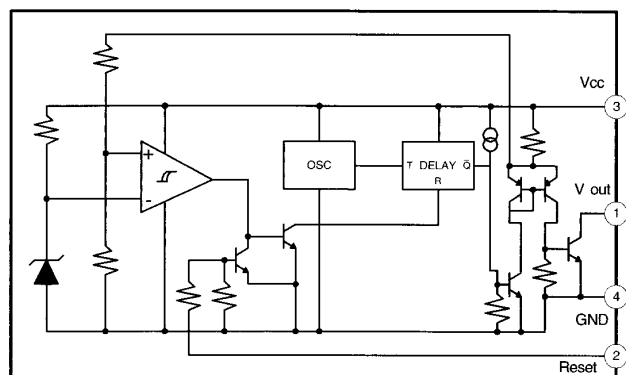
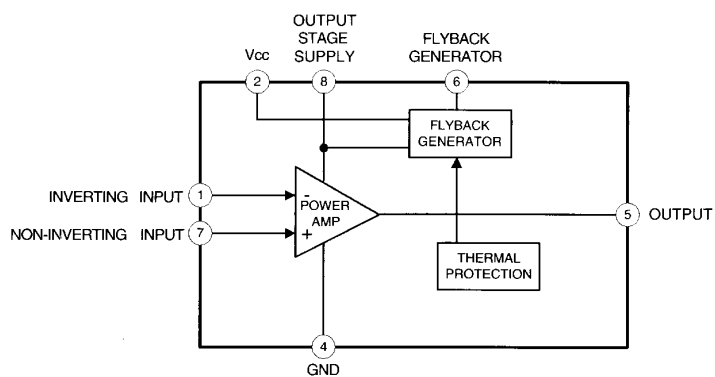
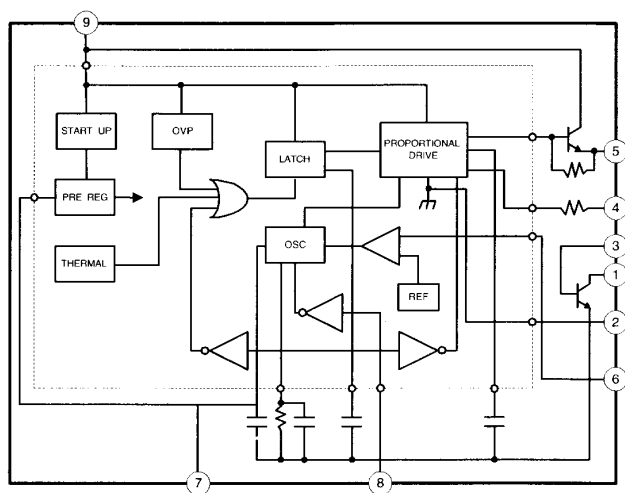
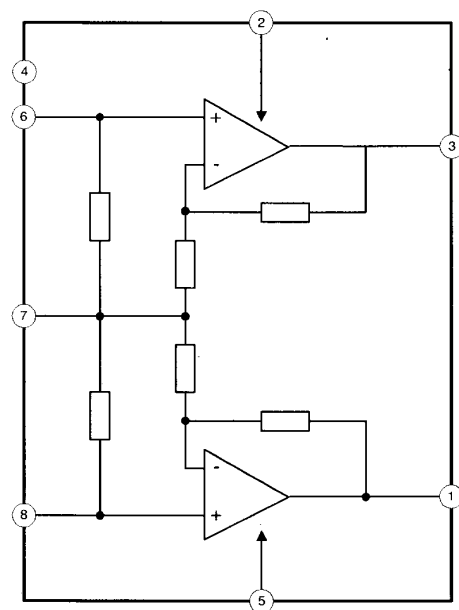
A BOARD IC301 CXA2000Q-TL



A BOARD IC201 CXA2040Q

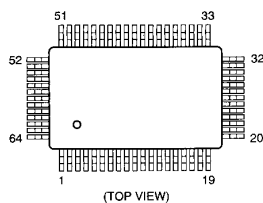
A BOARD IC202 MSP3410/MSP3400



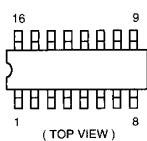
A BOARD IC4 PST593C**D BOARD IC500 STV9379****D BOARD IC600 STR-S6708****D BOARD IC1200 TDA7264**

5-4. SEMICONDUCTORS

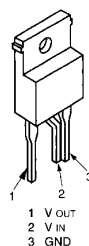
CXA2000Q-TL



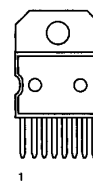
MC14052BDR2



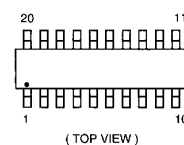
SE135N



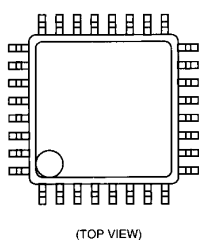
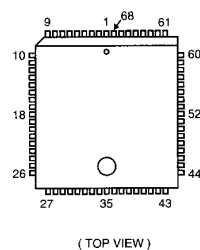
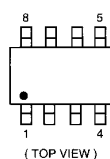
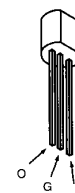
TDA7264



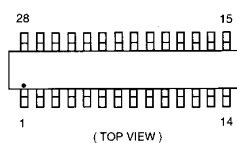
TDA8395T



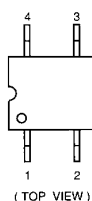
CXA2040Q-T4

MSP3400C-PS
MSP3410-15
SDA5273CP-GEGST24E32M6TR
TDA1387T
TL072CDRL4941BV
LM78L05ACZ

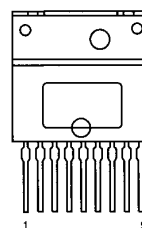
KM62256CLG



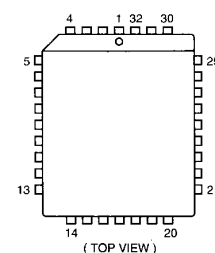
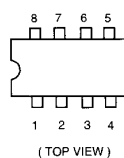
PST593C-MMP-4P



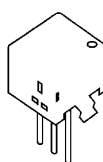
STR-S6709



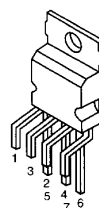
TMS27PC020-15FML

LM393P
TDA2822M
μPC393C

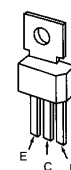
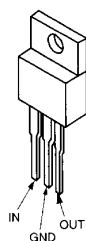
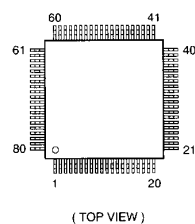
SBX1790-51



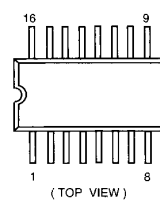
STV9379



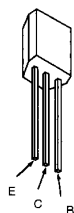
BF871-127

LM2940CT-5.0
LM2940T-9.0
μPC2405HFSDA5250M-GEG
DSP56004-FJ

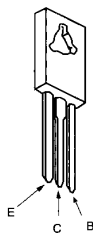
TDA4665T-T

BF421L-AMMO
2SA933AS
2SA933S
2SA1091-O
2SC2389STP-R
2SC2808STP-R

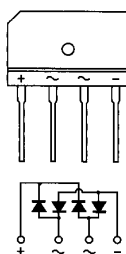
DTA144ES
DTC114ES
DTC143TS
DTC144ES
2SC1740S-RT



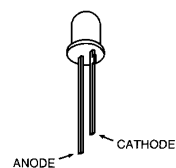
2SC2688-LK



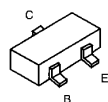
D4SB60L



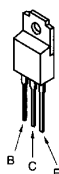
SLA-570KT3F



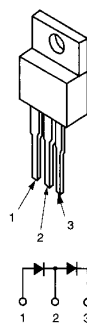
DTC114TK
DTC144EK
2SA1037K
2SA1162-G
2SC2412K



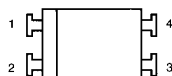
2SC4793



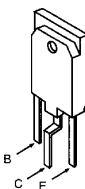
FMS-3FU



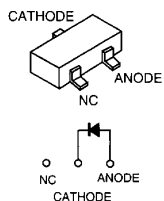
TLP721(D4-)



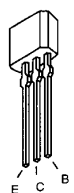
2SC4927-01



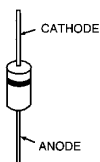
MA3030H(TX)



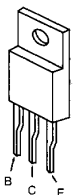
2SA1175-HFE
2SC2785-HFE



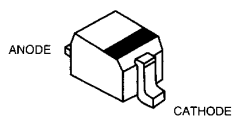
AU-01Z-V1 GP08D
EG-1Z-V1 RGP02
EGP20G RGP10GPKG23
EL1Z RGP15GPKG23
EM1-V1 RU3YX
EU-1-V1 RU4AM-T3
EUZ-V1 RU4DS
FML-G12S



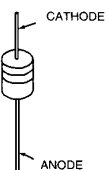
2SA1667
2SA1837
2SC3852A



BAS216 1SS355
DTZ9.1 RD5.6S-B
DTZ33B UDZ-TE-17-9.1B
MA8330



MTZJ-3.6A RD3.9ESB2
MTZJ-3.9B RD5.1ESB2
MTZJ-5.1B RD5.6ESB2
MTZJ-5.6B RD6.2ESB2
MTZJ-6.2B RD6.8ESB2
MTZJ-6.8B RD7.5ESB2
MTZJ-7.5C 1SS133T-77
MTZJ-T-77-9.1A




SECTION 6


EXPLODED VIEWS

NOTE :

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

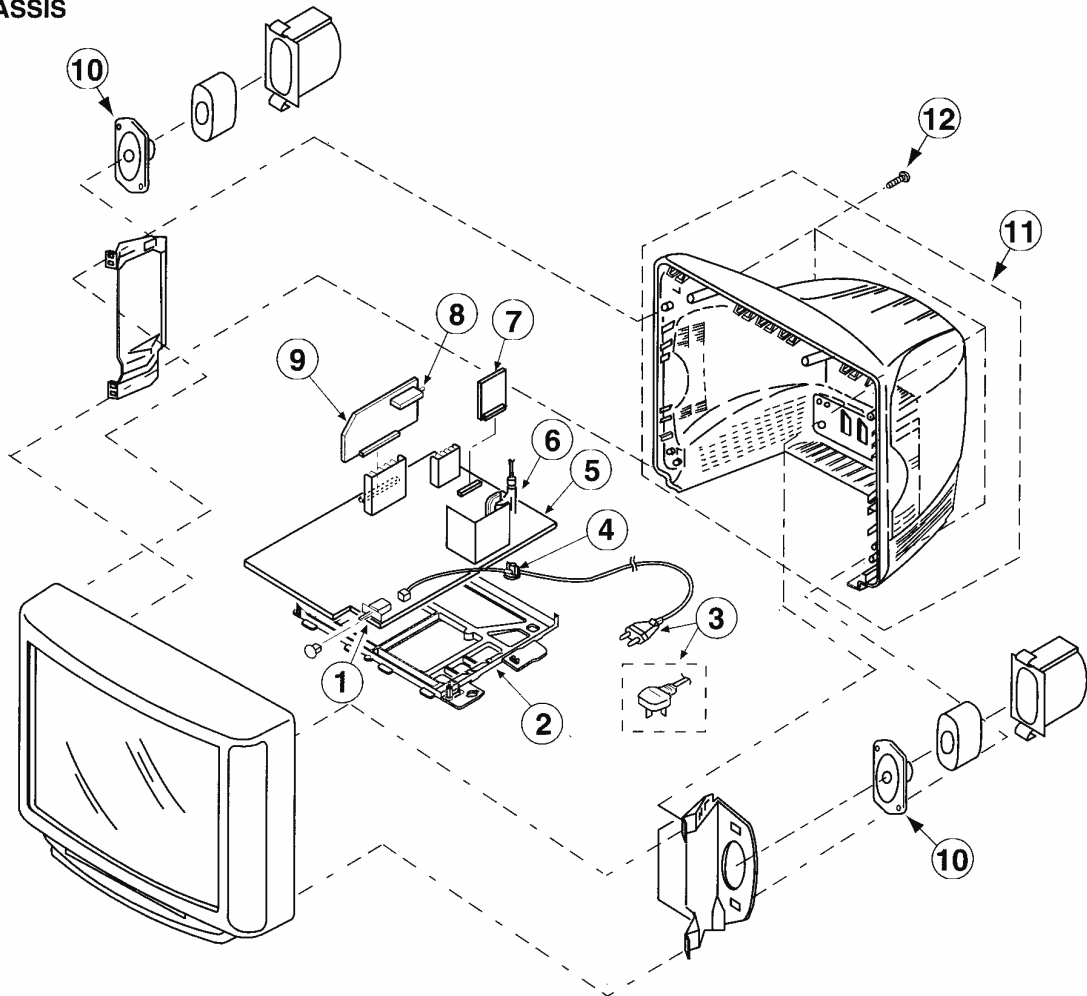
The components identified by shading and marked  are critical for safety.

Replace only with the part number specified.

Les composants identifiés par une trame et une marque  sont critiques pour la sécurité.

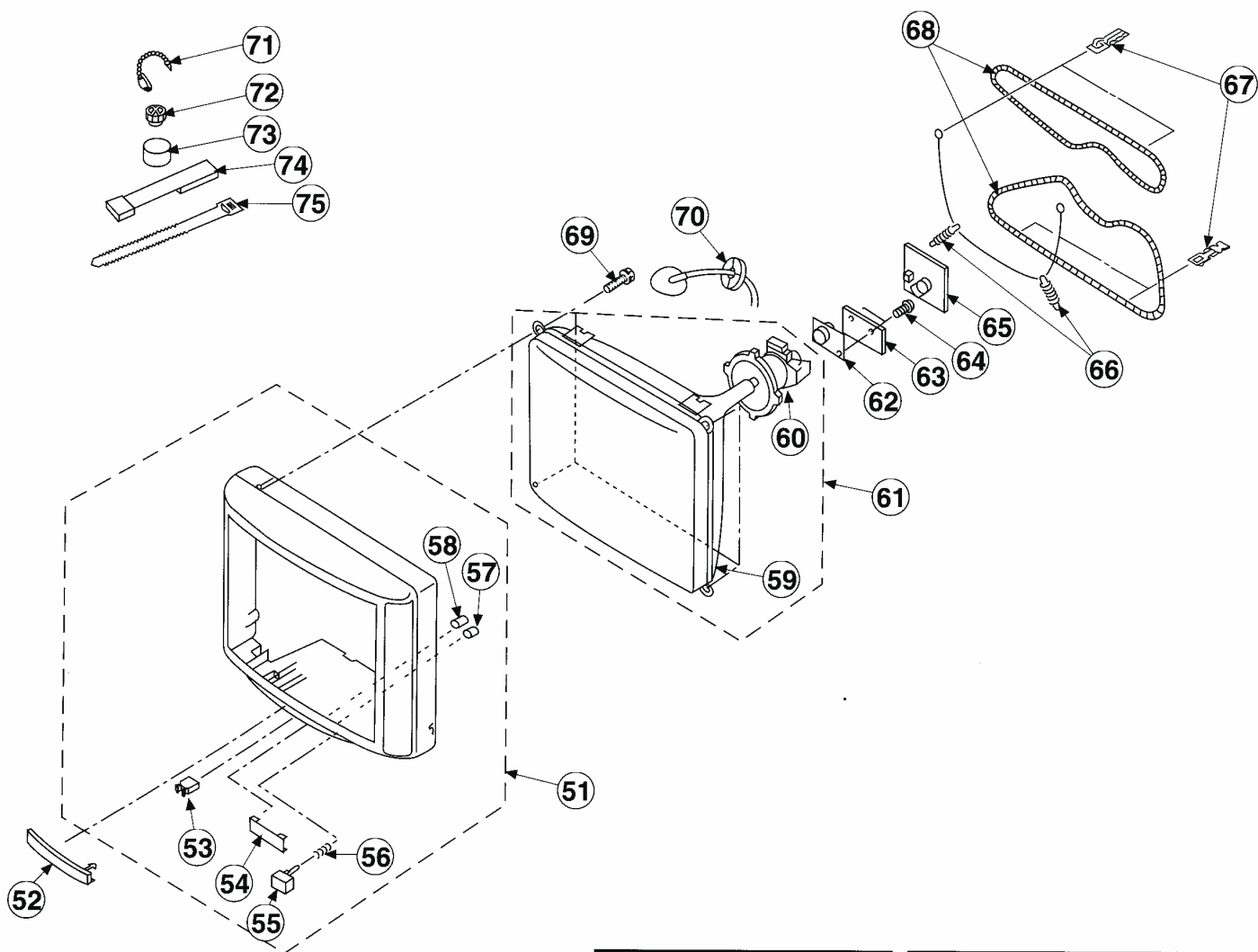
Ne les remplacer que par une pièce portant le numéro spécifié.

6-1. CHASSIS



REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
1	1-571-433-21	SWITCH, PUSH (AC POWER)		8	1-693-338-11	TUNER/VIF (AEP) (KV-29X1A/29X1D/29X1E/29X1K/29X1L/ 29X1R)	
2	*4-203-315-01	BRACKET, MAIN			1-693-340-11	TUNER/VIF (FR) (KV-29X1B)	
3	1-751-680-11	CORD, POWER (WITH NOISE FILTER) 2.5A/250V (KV-29X1A/29X1B/29X1D/ 29X1E)			1-693-339-11	TUNER/VIF (UK) (KV-29X1U)	
	1-690-270-21	CORD, POWER (WITH CONNECTOR) 2.5A/250V (KV-29X1K/29X1R)		9	*A-1632-423-A	A BOARD, COMPLETE (KV-29X1A)	
	1-776-240-11	CORD, POWER (FILTER) 3A/250V (KV-29X1L/29X1U)			*A-1632-425-A	A BOARD, COMPLETE (KV-29X1B)	
4	*4-202-531-01	AC CORD LOCK (SC)			*A-1632-422-A	A BOARD, COMPLETE (KV-29X1D)	
5	*A-1642-165-A	D BOARD, COMPLETE			*A-1632-424-A	A BOARD, COMPLETE (KV-29X1E)	
6	1-453-169-11	TRANSFORMER ASSY, FLYBACK (UX-1604A2)			*A-1632-426-A	A BOARD, COMPLETE (KV-29X1K)	
7	*A-1640-214-A	D2 BOARD, COMPLETE			*A-1632-433-A	A BOARD, COMPLETE (KV-29X1L)	
					*A-1632-427-A	A BOARD, COMPLETE (KV-29X1R)	
					*A-1632-400-A	A BOARD, COMPLETE (KV-29X1U)	
				10	1-544-727-11	SPEAKER (7.5x13CM)	
				11	X-4200-257-1	COVER ASSY, REAR (SC)	
				12	4-039-358-01	SCREW (4x16), (+) BV TAPPING	

6-2. PICTURE TUBE



The components identified by shading and marked ! are critical for safety.
Replace only with the part number specified.

Les composants identifiés par une trame et une marque ! sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

REF NO	PART NO	DESCRIPTION	REMARK
51	X-4200-258-1	BEZNET ASSY	53-58
52	4-203-364-01	DOOR, CONTROL	
53	4-047-464-01	CATCHER, PUSH	
54	4-203-365-01	WINDOW, ORNAMENTAL	
55	4-203-362-01	BUTTON, POWER	
56	4-202-964-01	SPRING	
57	*4-203-363-01	GUIDE, LED LIGHT	
58	4-202-465-01	GUIDE, LED LIGHT	
59	8-733-856-05	PICTURE TUBE (SD-269) (M68LC160K)	
60	8-451-467-11	DEFLECTION YOKE (Y29G1A1B)	
61	8-733-856-71	ITC	59-60
62	8-453-005-10	NECK ASSY (NA297-M)	
63	*A-1644-070-A	VM BOARD, COMPLETE	
64	4-639-357-01	SCREW(3x8), (+) BV TAPPING	
65	*A-1638-082-A	C BOARD, COMPLETE	
66	4-200-433-01	SPRING, EXTENSION	

REF NO	PART NO	DESCRIPTION	REMARK
67	4-202-415-01	CLIP, DGC (29")	
68	1-406-807-10	COIL, DEGAUSSING	
69	4-036-188-01	SCREW (M), PT	
70	4-202-693-01	HOLDER, HV CABLE	
71	4-308-870-00	CLIP, LEAD WIRE	
72	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø	
73	1-452-032-00	MAGNET, DISK; 10MM Ø	
74	X-4387-214-1	PERMALLOY ASSY, CORRECTION	
75	3-701-007-00	BAND, BINDING	

SECTION 7

ELECTRICAL PARTS LIST

The components identified by shading and marked **A** are critical for safety. Replace only with the part number specified.

Les composants identifiés par une trame et une marque **A** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS

MF : mF, PF : mmF

COILS

MMH : mH, μ H : mH

A

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1632-423-A	A BOARD, COMPLETE (KV-29X1A) *****		C112	1-163-141-00	CERAMIC CHIP 0.001MF	5%
	*A-1632-425-A	A BOARD, COMPLETE (KV-29X1B) *****		C113	1-126-967-11	ELECT 47MF	20%
	*A-1632-422-A	A BOARD, COMPLETE (KV-29X1D) *****		C120	1-163-117-00	CERAMIC CHIP 100PF	5%
	*A-1632-424-A	A BOARD, COMPLETE (KV-29X1E) *****		C121	1-163-113-00	CERAMIC CHIP 68PF	5%
	*A-1632-426-A	A BOARD, COMPLETE (KV-29X1K) *****		C122	1-163-137-00	CERAMIC CHIP 680PF	5%
	*A-1632-433-A	A BOARD, COMPLETE (KV-29X1L) *****		C123	1-163-113-00	CERAMIC CHIP 68PF	5%
	*A-1632-427-A	A BOARD, COMPLETE (KV-29X1R) *****		C124	1-137-399-11	FILM 0.1MF	5%
	*A-1632-400-A	A BOARD, COMPLETE (KV-29X1U) *****		C201	1-163-139-00	CERAMIC CHIP 820PF	10%
	1-750-797-11	SOCKET, PLCC		C202	1-164-004-11	CERAMIC CHIP 0.1MF	10%
	< CAPACITOR >			C203	1-126-933-11	ELECT 100MF	20%
C1	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C204	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C2	1-126-965-11	ELECT 22MF	20%	C205	1-126-965-11	ELECT 22MF	20%
C3	1-163-104-00	CERAMIC CHIP 30PF	5%	C206	1-163-141-00	CERAMIC CHIP 0.001MF	5%
C4	1-163-104-00	CERAMIC CHIP 30PF	5%	C207	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C8	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C208	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C10	1-163-243-11	CERAMIC CHIP 47PF	5%	C209	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C11	1-163-243-11	CERAMIC CHIP 47PF	5%	C210	1-216-295-00	METAL GLAZE 0	5% 1/10W
C15	1-163-133-00	CERAMIC CHIP 470PF	5%	C211	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C18	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C212	1-164-346-11	CERAMIC CHIP 1MF	16V
C19	1-163-989-11	CERAMIC CHIP 0.033MF	10%	C213	1-163-133-00	CERAMIC CHIP 470PF	5%
C20	1-164-232-11	CERAMIC CHIP 0.01MF	10%	C214	1-164-346-11	CERAMIC CHIP 1MF	16V
C21	1-164-232-11	CERAMIC CHIP 0.01MF	10%	C215	1-163-133-00	CERAMIC CHIP 470PF	5%
C22	1-163-117-00	CERAMIC CHIP 100PF	5%	C216	1-126-967-11	ELECT 47MF	20%
C40	1-163-989-11	CERAMIC CHIP 0.033MF	10%	C217	1-164-232-11	CERAMIC CHIP 0.01MF	10%
C41	1-163-989-11	CERAMIC CHIP 0.033MF	10%	C218	1-126-967-11	ELECT 47MF	20%
C42	1-163-989-11	CERAMIC CHIP 0.033MF	10%	C219	1-164-232-11	CERAMIC CHIP 0.01MF	10%
C43	1-163-121-00	CERAMIC CHIP 150PF	5%	C220	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C44	1-163-989-11	CERAMIC CHIP 0.033MF	10%	C221	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C45	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C222	1-164-346-11	CERAMIC CHIP 1MF	16V
C80	1-163-117-00	CERAMIC CHIP 100PF	5%	C223	1-163-133-00	CERAMIC CHIP 470PF	5%
C81	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C224	1-164-346-11	CERAMIC CHIP 1MF	16V
C82	1-163-037-11	CERAMIC CHIP 0.022MF	10%	C225	1-163-133-00	CERAMIC CHIP 470PF	5%
C90	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C226	1-126-967-11	ELECT 47MF	20%
C101	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C227	1-164-232-11	CERAMIC CHIP 0.01MF	10%
C102	1-126-934-11	ELECT 220MF	20%	C228	1-126-967-11	ELECT 47MF	20%
C103	1-126-965-11	ELECT 22MF	20%	C229	1-164-232-11	CERAMIC CHIP 0.01MF	10%
C104	1-163-117-00	CERAMIC CHIP 100PF	5%	C230	1-216-295-00	METAL GLAZE 0	5% 1/10W
C110	1-126-967-11	ELECT 47MF	20%	C231	1-163-038-00	CERAMIC CHIP 0.1MF	25V
				C232	1-126-967-11	ELECT 47MF	20%
				C251	1-163-087-00	CERAMIC CHIP 4PF	0.25PF 50V
				C252	1-163-087-00	CERAMIC CHIP 4PF	0.25PF 50V
				C253	1-163-117-00	CERAMIC CHIP 100PF	5%
				C254	1-163-109-00	CERAMIC CHIP 47PF	5%
				C255	1-163-117-00	CERAMIC CHIP 100PF	5%
				C256	1-163-038-00	CERAMIC CHIP 0.1MF	25V



REF.NO.	PART NO.	DESCRIPTION	REMARK
C257	1-126-965-11	ELECT 22MF	20% 50V
C258	1-126-964-11	ELECT 10MF	20% 50V
C259	1-164-336-11	CERAMIC CHIP 0.33MF	25V
C260	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C261	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C262	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C263	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C264	1-126-962-11	ELECT 3.3MF	20% 50V
C265	1-126-964-11	ELECT 10MF	20% 50V
C266	1-126-964-11	ELECT 10MF	20% 50V
C267	1-126-965-11	ELECT 22MF	20% 50V
C268	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C269	1-163-131-00	CERAMIC CHIP 390PF	5% 50V
C270	1-163-131-00	CERAMIC CHIP 390PF	5% 50V
C271	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C272	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C273	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C274	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C275	1-164-346-11	CERAMIC CHIP 1MF	16V
C276	1-164-346-11	CERAMIC CHIP 1MF	16V
C277	1-164-346-11	CERAMIC CHIP 1MF	16V
C278	1-164-346-11	CERAMIC CHIP 1MF	16V
C279	1-126-965-11	ELECT 22MF	20% 50V
C280	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C281	1-126-965-11	ELECT 22MF	20% 50V
C282	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C300	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
C301	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C302	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C303	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C304	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C305	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C306	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C307	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C308	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C309	1-164-346-11	CERAMIC CHIP 1MF	16V
C310	1-164-346-11	CERAMIC CHIP 1MF	16V
C311	1-164-346-11	CERAMIC CHIP 1MF	16V
C312	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C313	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C315	1-216-295-00	METAL GLAZE 0	5% 1/10W
C317	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C319	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C320	1-126-965-11	ELECT 22MF	20% 50V
C321	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C322	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C323	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C324	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C325	1-164-346-11	CERAMIC CHIP 1MF	16V
C326	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C327	1-137-374-11	FILM 0.047MF	5% 50V
C328	1-126-964-11	ELECT 10MF	20% 50V
C329	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C330	1-130-777-00	FILM 0.1MF	5% 63V
C331	1-137-581-11	FILM 0.1MF	5% 100V
C332	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C333	1-126-933-11	ELECT 100MF	20% 16V
C334	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C335	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C336	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V

REF.NO.	PART NO.	DESCRIPTION	REMARK
C337	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C338	1-164-346-11	CERAMIC CHIP 1MF	16V
C339	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C340	1-126-933-11	ELECT 100MF	20% 16V
C341	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C342	1-164-346-11	CERAMIC CHIP 1MF	16V
C343	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C344	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C347	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C348	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C350	1-126-964-11	ELECT 10MF	20% 50V
C351	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C352	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C353	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C354	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C355	1-126-965-11	ELECT 22MF	20% 50V
C356	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C357	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C358	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C359	1-163-231-11	CERAMIC CHIP 15PF	5% 50V
C360	1-163-231-11	CERAMIC CHIP 15PF	5% 50V
C370	1-164-505-11	CERAMIC CHIP 2.2MF	16V
(KV-29X1B/29X1D/29X1E/29X1K/29X1R)			
C371	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C372	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
(KV-29X1B/29X1D/29X1E/29X1K/29X1R)			
C373	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V
(KV-29X1B/29X1D/29X1E/29X1K/29X1R)			
< FILTER >			
CF120	1-409-327-00	TRAP, CERAMIC (6.5MHz)	(KV-29X1B)
< CONNECTOR >			
CN1	1-695-302-11	CONNECTOR, BOARD TO BOARD	50P
CN2	*1-568-880-51	PIN, CONNECTOR	5P
CN201	1-766-296-11	CONNECTOR, DUAL SCART	
CN301	*1-568-882-51	PIN, CONNECTOR	7P
< DIODE >			
D2	8-719-988-62	DIODE 1SS355	
D10	8-719-158-15	DIODE RD5.6S-B	
D11	8-719-158-15	DIODE RD5.6S-B	
D12	8-719-158-15	DIODE RD5.6S-B	
D101	8-719-977-81	DIODE DTZ33B	
D201	8-719-977-22	DIODE DTZ9.1	
D202	8-719-977-22	DIODE DTZ9.1	
D203	8-719-977-22	DIODE DTZ9.1	
D204	8-719-977-22	DIODE DTZ9.1	
D205	8-719-977-22	DIODE DTZ9.1	
D206	8-719-977-22	DIODE DTZ9.1	
D207	8-719-977-22	DIODE DTZ9.1	
D208	8-719-977-22	DIODE DTZ9.1	
D209	8-719-977-22	DIODE DTZ9.1	
D210	8-719-977-22	DIODE DTZ9.1	
D211	8-719-977-22	DIODE DTZ9.1	
D212	8-719-977-22	DIODE DTZ9.1	
D213	8-719-977-22	DIODE DTZ9.1	
D214	8-719-977-22	DIODE DTZ9.1	
D215	8-719-977-22	DIODE DTZ9.1	
D216	8-719-158-15	DIODE RD5.6S-B	



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
D217	8-719-158-15	DIODE RD5.6S-B		Q80	8-729-920-74	TRANSISTOR 2SC2412K-QR	
D218	8-719-158-15	DIODE RD5.6S-B		Q81	8-729-216-22	TRANSISTOR 2SA1162-G	
D220	8-719-988-62	DIODE 1SS355		Q110	8-729-920-74	TRANSISTOR 2SC2412K-QR	
D221	8-719-988-62	DIODE 1SS355		Q111	8-729-216-22	TRANSISTOR 2SA1162-G	
				Q112	8-729-920-74	TRANSISTOR 2SC2412K-QR	
D222	8-719-977-22	DIODE DTZ9.1		Q113	8-729-216-22	TRANSISTOR 2SA1162-G	
D223	8-719-977-22	DIODE DTZ9.1		Q114	8-729-216-22	TRANSISTOR 2SA1162-G	
D224	8-719-977-22	DIODE DTZ9.1		Q120	8-729-920-74	TRANSISTOR 2SC2412K-QR	
D225	8-719-977-22	DIODE DTZ9.1		Q121	8-729-920-74	TRANSISTOR 2SC2412K-QR (KV-29X1B)	
D226	8-719-977-22	DIODE DTZ9.1		Q122	8-729-920-74	TRANSISTOR 2SC2412K-QR	
D227	8-719-977-13	DIODE DTZ6.8C		Q124	8-729-920-74	TRANSISTOR 2SC2412K-QR (KV-29X1B)	
D251	8-719-047-16	DIODE BAS216		Q130	8-729-216-22	TRANSISTOR 2SA1162-G (KV-29X1B)	
D320	8-719-977-22	DIODE DTZ9.1		Q201	8-729-920-74	TRANSISTOR 2SC2412K-QR	
D370	8-719-047-16	DIODE BAS216		Q202	8-729-920-74	TRANSISTOR 2SC2412K-QR	
		(KV-29X1B/29X1D/29X1E/29X1K/29X1R)		Q203	8-729-920-74	TRANSISTOR 2SC2412K-QR	
	< ENCAPSULATED FILTER >			Q204	8-729-920-74	TRANSISTOR 2SC2412K-QR	
FL101	1-236-071-11	ENCAPSULATED COMPONENT		Q205	8-729-901-01	TRANSISTOR DTC144EK	
FL201	1-236-071-11	ENCAPSULATED COMPONENT		Q206	8-729-216-22	TRANSISTOR 2SA1162-G	
FL202	1-236-071-11	ENCAPSULATED COMPONENT		Q207	8-729-216-22	TRANSISTOR 2SA1162-G	
FL203	1-236-071-11	ENCAPSULATED COMPONENT		Q300	8-729-901-01	TRANSISTOR DTC144EK	
	< IC >			Q304	8-729-920-74	TRANSISTOR 2SC2412K-QR	
IC1	8-759-376-75	IC SDA5250M-GEG		Q305	8-729-920-74	TRANSISTOR 2SC2412K-QR	
IC2	8-759-334-20	IC ST24E32M6TR		Q306	8-729-920-74	TRANSISTOR 2SC2412K-QR	
				Q330	8-729-216-22	TRANSISTOR 2SA1162-G	
IC3	8-759-428-13	IC TMS27PC010A-15FMBE101		Q331	8-729-920-74	TRANSISTOR 2SC2412K-QR	
		(KV-29X1A/29X1B/29X1D/29X1K)					
	8-759-428-12	IC TMS27PC010A-15FMBW101		Q332	8-729-920-74	TRANSISTOR 2SC2412K-QR	
		(KV-29X1E/29X1L/29X1U)		Q1002	8-729-216-22	TRANSISTOR 2SA1162-G	
	8-759-167-62	IC TMS27PC010A-15FML (KV-29X1R)			< RESISTOR >		
				JR2	1-216-296-00	METAL GLAZE 0 5% 1/8W	
IC4	8-759-394-57	IC PST593C-MMP-4P		JR101	1-216-295-00	METAL GLAZE 0 5% 1/10W	
IC201	8-752-076-06	IC CXA2040Q-T4		JR201	1-216-295-00	METAL GLAZE 0 5% 1/10W	
IC202	8-759-376-56	IC MSP3400C-PS		JR206	1-216-295-00	METAL GLAZE 0 5% 1/10W	
		(KV-29X1A/29X1D/29X1K/29X1R)		JR207	1-216-295-00	METAL GLAZE 0 5% 1/10W	
	8-759-376-80	IC MSP3410-15					
		(KV-29X1B/29X1E/29X1L/29X1U)		JR304	1-216-296-00	METAL GLAZE 0 5% 1/8W	
				JR305	1-216-296-00	METAL GLAZE 0 5% 1/8W	
IC203	8-759-385-76	IC MC14052BDR2		R1	1-216-295-00	METAL GLAZE 0 5% 1/10W	
IC301	8-752-076-09	IC CXA2000Q-TL		R2	1-216-025-00	METAL GLAZE 100 5% 1/10W	
IC302	8-759-288-85	IC TDA4665T-T		R3	1-216-025-00	METAL GLAZE 100 5% 1/10W	
IC303	8-759-251-56	IC TDA8395T		R4	1-216-013-00	METAL GLAZE 33 5% 1/10W	
		(KV-29X1B/29X1D/29X1E/29X1K/29X1R)		R5	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
	< COIL >			R7	1-216-041-00	METAL GLAZE 470 5% 1/10W	
L10	1-410-379-31	INDUCTOR CHIP 6.8UH		R8	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
L102	1-408-406-00	INDUCTOR 5.6UH (KV-29X1B)		R9	1-216-041-00	METAL GLAZE 470 5% 1/10W	
L111	1-410-993-11	INDUCTOR CHIP 1UH		R10	1-216-041-00	METAL GLAZE 470 5% 1/10W	
L120	1-408-408-00	INDUCTOR 8.2UH		R11	1-216-041-00	METAL GLAZE 470 5% 1/10W	
L121	1-408-397-00	INDUCTOR 1UH					
				R12	1-216-041-00	METAL GLAZE 470 5% 1/10W	
L122	1-408-408-00	INDUCTOR 8.2UH		R13	1-216-029-00	METAL GLAZE 150 5% 1/10W	
L300	1-408-607-31	INDUCTOR 22UH				(KV-29X1A/29X1D/29X1E/29X1K/29X1L/29X1R/29X1U)	
	< TRANSISTOR >			R14	1-216-029-00	METAL GLAZE 150 5% 1/10W	
Q1	8-729-920-74	TRANSISTOR 2SC2412K-QR				(KV-29X1A/29X1D/29X1E/29X1K/29X1L/29X1R/29X1U)	
Q4	8-729-920-74	TRANSISTOR 2SC2412K-QR		R15	1-216-029-00	METAL GLAZE 150 5% 1/10W	
Q5	8-729-920-74	TRANSISTOR 2SC2412K-QR				(KV-29X1A/29X1D/29X1E/29X1K/29X1L/29X1R/29X1U)	
Q10	8-729-216-22	TRANSISTOR 2SA1162-G		R16	1-216-025-91	METAL GLAZE 100 5% 1/10W	
Q11	8-729-216-22	TRANSISTOR 2SA1162-G				(KV-29X1A/29X1D/29X1E/29X1K/29X1L/29X1R/29X1U)	
Q12	8-729-216-22	TRANSISTOR 2SA1162-G					
Q15	8-729-901-01	TRANSISTOR DTC144EK					
Q16	8-729-901-01	TRANSISTOR DTC144EK					
Q17	8-729-901-01	TRANSISTOR DTC144EK					
Q18	8-729-901-01	TRANSISTOR DTC144EK					



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R17	1-216-025-91	METAL GLAZE 100 5% 1/10W (KV-29X1A/29X1D/29X1E/29X1K/29X1L/ 29X1R/29X1U)		R86	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R18	1-216-025-00	METAL GLAZE 100 5% 1/10W		R87	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R19	1-216-025-00	METAL GLAZE 100 5% 1/10W		R88	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R20	1-216-025-00	METAL GLAZE 100 5% 1/10W		R91	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R21	1-216-025-00	METAL GLAZE 100 5% 1/10W		R92	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R24	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W		R93	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R25	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W		R94	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R28	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W		R95	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R29	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W		R97	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R30	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W		R98	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R31	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W		R101	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R32	1-216-025-00	METAL GLAZE 100 5% 1/10W		R102	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R33	1-216-025-00	METAL GLAZE 100 5% 1/10W		R103	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R34	1-216-025-00	METAL GLAZE 100 5% 1/10W		R104	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R35	1-216-025-00	METAL GLAZE 100 5% 1/10W		R105	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R36	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W		R106	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R37	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W		R110	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R38	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W		R111	1-216-029-00	METAL GLAZE 150 5% 1/10W	
R39	1-216-073-00	METAL GLAZE 10K 5% 1/10W		R112	1-216-029-00	METAL GLAZE 150 5% 1/10W	
R40	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W		R113	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R42	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W		R114	1-216-029-00	METAL GLAZE 150 5% 1/10W	
R44	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W		R115	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R46	1-216-095-00	METAL GLAZE 82K 5% 1/10W		R116	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R47	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W		R117	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W (KV-29X1A/29X1B/29X1D/29X1E/29X1K/ 29X1L/29X1R)	
R48	1-216-121-91	METAL GLAZE 1M 5% 1/10W			1-216-056-00	METAL GLAZE 2K 5% 1/10W (KV-29X1U)	
R49	1-216-025-00	METAL GLAZE 100 5% 1/10W		R118	1-216-071-00	METAL GLAZE 8.2K 5% 1/10W	
R50	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W		R119	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R51	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W		R120	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
R52	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W		R121	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R53	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W		R122	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R54	1-216-025-00	METAL GLAZE 100 5% 1/10W		R123	1-216-031-00	METAL GLAZE 180 5% 1/10W	
R58	1-216-063-91	METAL GLAZE 3.9K 5% 1/10W		R124	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R59	1-216-025-00	METAL GLAZE 100 5% 1/10W		R125	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R60	1-216-025-00	METAL GLAZE 100 5% 1/10W		R126	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R61	1-216-025-00	METAL GLAZE 100 5% 1/10W		R127	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R62	1-216-025-00	METAL GLAZE 100 5% 1/10W		R128	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R63	1-216-025-00	METAL GLAZE 100 5% 1/10W		R129	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R64	1-216-025-00	METAL GLAZE 100 5% 1/10W		R130	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R65	1-216-025-00	METAL GLAZE 100 5% 1/10W		R131	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R66	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W		R132	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R67	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W		R133	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R69	1-216-025-00	METAL GLAZE 100 5% 1/10W		R134	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R70	1-216-025-00	METAL GLAZE 100 5% 1/10W		R135	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R71	1-216-025-00	METAL GLAZE 100 5% 1/10W		R136	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R72	1-216-025-00	METAL GLAZE 100 5% 1/10W		R137	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R73	1-216-025-00	METAL GLAZE 100 5% 1/10W		R138	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R74	1-216-025-00	METAL GLAZE 100 5% 1/10W		R200	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R75	1-216-025-00	METAL GLAZE 100 5% 1/10W		R201	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R76	1-216-025-00	METAL GLAZE 100 5% 1/10W		R202	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R77	1-216-025-00	METAL GLAZE 100 5% 1/10W		R203	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R78	1-216-025-00	METAL GLAZE 100 5% 1/10W		R204	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R79	1-216-033-00	METAL GLAZE 220 5% 1/10W		R205	1-216-093-00	METAL GLAZE 68K 5% 1/10W	
R80	1-216-049-00	METAL GLAZE 1K 5% 1/10W		R206	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R81	1-216-081-00	METAL GLAZE 22K 5% 1/10W		R208	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R82	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W		R209	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R83	1-216-073-00	METAL GLAZE 10K 5% 1/10W		R210	1-216-017-91	METAL GLAZE 47 5% 1/10W	
R84	1-216-081-00	METAL GLAZE 22K 5% 1/10W		R211	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R85	1-216-073-00	METAL GLAZE 10K 5% 1/10W					

A

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R212	1-216-022-00	METAL GLAZE 75 5%	1/10W	R316	1-216-033-00	METAL GLAZE 220 5%	1/10W
R213	1-216-022-00	METAL GLAZE 75 5%	1/10W	R318	1-216-689-11	METAL GLAZE 39K 5%	1/10W
R214	1-216-025-00	METAL GLAZE 100 5%	1/10W	R319	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R216	1-216-025-00	METAL GLAZE 100 5%	1/10W	R320	1-216-025-00	METAL GLAZE 100 5%	1/10W
R217	1-216-113-00	METAL GLAZE 470K 5%	1/10W	R321	1-216-025-00	METAL GLAZE 100 5%	1/10W
R218	1-216-025-00	METAL GLAZE 100 5%	1/10W	R322	1-216-025-00	METAL GLAZE 100 5%	1/10W
R219	1-216-113-00	METAL GLAZE 470K 5%	1/10W	R323	1-216-033-00	METAL GLAZE 220 5%	1/10W
R220	1-216-295-00	METAL GLAZE 0 5%	1/10W	R324	1-216-063-91	METAL GLAZE 3.9K 5%	1/10W
R221	1-216-039-00	METAL GLAZE 390 5%	1/10W	R326	1-216-025-00	METAL GLAZE 100 5%	1/10W
R222	1-216-089-00	METAL GLAZE 47K 5%	1/10W	R327	1-216-025-00	METAL GLAZE 100 5%	1/10W
R223	1-216-295-00	METAL GLAZE 0 5%	1/10W	R328	1-216-129-00	METAL GLAZE 2.2M 5%	1/10W
R224	1-216-039-00	METAL GLAZE 390 5%	1/10W	R329	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R225	1-216-089-00	METAL GLAZE 47K 5%	1/10W	R330	1-216-025-00	METAL GLAZE 100 5%	1/10W
R226	1-216-033-00	METAL GLAZE 220 5%	1/10W	R331	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W
R227	1-216-022-00	METAL GLAZE 75 5%	1/10W	R332	1-216-025-00	METAL GLAZE 100 5%	1/10W
R228	1-216-022-00	METAL GLAZE 75 5%	1/10W	R333	1-216-075-00	METAL GLAZE 12K 5%	1/10W
R229	1-216-033-00	METAL GLAZE 220 5%	1/10W	R334	1-216-041-00	METAL GLAZE 470 5%	1/10W
R230	1-216-022-00	METAL GLAZE 75 5%	1/10W	R335	1-208-806-11	METAL CHIP 10K 0.50%	1/10W
R232	1-216-025-00	METAL GLAZE 100 5%	1/10W	R336	1-216-109-00	METAL GLAZE 330K 5%	1/10W
R233	1-216-025-00	METAL GLAZE 100 5%	1/10W	R337	1-216-025-00	METAL GLAZE 100 5%	1/10W
R234	1-216-113-00	METAL GLAZE 470K 5%	1/10W	R338	1-216-051-00	METAL GLAZE 1.2K 5%	1/10W
R235	1-216-025-00	METAL GLAZE 100 5%	1/10W	R339	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R236	1-216-113-00	METAL GLAZE 470K 5%	1/10W	R340	1-216-025-00	METAL GLAZE 100 5%	1/10W
R237	1-216-295-00	METAL GLAZE 0 5%	1/10W	R341	1-216-025-00	METAL GLAZE 100 5%	1/10W
R238	1-216-089-00	METAL GLAZE 47K 5%	1/10W	R342	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R239	1-216-039-00	METAL GLAZE 390 5%	1/10W	R343	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R240	1-216-295-00	METAL GLAZE 0 5%	1/10W	R344	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
R241	1-216-089-00	METAL GLAZE 47K 5%	1/10W	R345	1-216-025-00	METAL GLAZE 100 5%	1/10W
R242	1-216-039-00	METAL GLAZE 390 5%	1/10W	R346	1-216-063-91	METAL GLAZE 3.9K 5%	1/10W
R243	1-216-033-00	METAL GLAZE 220 5%	1/10W	R347	1-216-025-00	METAL GLAZE 100 5%	1/10W
R244	1-216-033-00	METAL GLAZE 220 5%	1/10W	R348	1-216-025-00	METAL GLAZE 100 5%	1/10W
R245	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R349	1-216-025-00	METAL GLAZE 100 5%	1/10W
R246	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W	R350	1-216-042-00	METAL GLAZE 510 5%	1/10W
R247	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W	R351	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
R249	1-216-001-00	METAL GLAZE 10 5%	1/10W	R352	1-216-077-00	METAL GLAZE 15K 5%	1/10W
R255	1-216-025-00	METAL GLAZE 100 5%	1/10W	R353	1-216-033-00	METAL GLAZE 220 5%	1/10W
R256	1-216-025-00	METAL GLAZE 100 5%	1/10W	R354	1-216-033-00	METAL GLAZE 220 5%	1/10W
R270	1-216-022-00	METAL GLAZE 75 5%	1/10W	R357	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R271	1-216-022-00	METAL GLAZE 75 5%	1/10W	R370	1-216-295-00	METAL GLAZE 0 5%	1/10W
R272	1-216-022-00	METAL GLAZE 75 5%	1/10W	< TUNER >			
R273	1-216-022-00	METAL GLAZE 75 5%	1/10W	TU101	1-693-338-11	TUNER/VIF (AEP) (KV-29X1A/29X1D/29X1E/29X1K/29X1L/ 29X1R)	
R280	1-216-049-00	METAL GLAZE 1K 5%	1/10W		1-693-340-11	TUNER/VIF (FR) (KV-29X1B)	
R281	1-216-089-00	METAL GLAZE 47K 5%	1/10W		1-693-339-11	TUNER/VIF (UK) (KV-29X1U)	
R282	1-216-093-00	METAL GLAZE 68K 5%	1/10W	< CRYSTAL >			
R283	1-216-049-00	METAL GLAZE 1K 5%	1/10W	X1	1-767-120-21	VIBRATOR, CERAMIC	
R284	1-216-089-00	METAL GLAZE 47K 5%	1/10W	X201	1-760-628-11	VIBRATOR, CRYSTAL	
R285	1-216-093-00	METAL GLAZE 68K 5%	1/10W	X301	1-567-504-11	OSCILLATOR, CRYSTAL	
R286	1-216-049-00	METAL GLAZE 1K 5%	1/10W	X302	1-567-505-11	OSCILLATOR, CRYSTAL	
R300	1-216-025-00	METAL GLAZE 100 5%	1/10W	X303	1-767-127-11	VIBRATOR, CERAMIC	
R301	1-216-033-00	METAL GLAZE 220 5%	1/10W				
R302	1-216-295-00	METAL GLAZE 0 5%	1/10W				
R303	1-216-295-00	METAL GLAZE 0 5%	1/10W				
R308	1-216-025-00	METAL GLAZE 100 5%	1/10W				
R309	1-216-033-00	METAL GLAZE 220 5%	1/10W				
R310	1-216-033-00	METAL GLAZE 220 5%	1/10W				
R311	1-216-295-00	METAL GLAZE 0 5%	1/10W				
R312	1-216-295-00	METAL GLAZE 0 5%	1/10W				
R313	1-216-295-00	METAL GLAZE 0 5%	1/10W				
R314	1-216-295-00	METAL GLAZE 0 5%	1/10W				
R315	1-216-295-00	METAL GLAZE 0 5%	1/10W				


IF (KV-29X1A/29X1D/29X1E/29X1K/
29X1L/29X1R/29X1U)


IF (KV-29X1B)

REF.NO.	PART NO.	DESCRIPTION	REMARK
	A-1652-037-A	IF BOARD, COMPLETE (KV-29X1A/29X1D/ ***** 29X1E/29X1K/ 29X1L/29X1R)	
	A-1652-038-A	IF BOARD, COMPLETE (KV-29X1U) *****	
< CAPACITOR >			
C01	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C02	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C03	1-104-957-11	ELECT 47MF	20% 16V
C04	1-135-259-11	TANTAL. CHIP 10MF	20% 6.3V
C05	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C06	1-164-005-11	CERAMIC CHIP 0.47MF	16V
C08	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C09	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C10	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C11	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C15	1-124-282-00	ELECT 22MF	20% 25V
C16	1-162-638-11	CERAMIC CHIP 1MF	16V
C18	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C19	1-124-937-11	ELECT 10MF	20% 16V
< FILTER >			
CF01	1-404-134-00	TRAP, CERAMIC (5.5MHZ)	
SWF04	1-767-084-11	FILTER, SURFACE WAVE	
< IC >			
IC01	8-759-385-26	IC TDA4472-CFLG3	
< COIL >			
L02	1-408-408-00	INDUCTOR 8.2UH	
L04	1-408-419-00	INDUCTOR 68UH	
L08	1-410-992-11	INDUCTOR CHIP 0.82UH	
< VARIABLE COIL >			
LV01	1-411-874-11	COIL	
< TRANSISTOR >			
Q01	8-729-216-22	TRANSISTOR 2SA1162-G	
< RESISTOR >			
JR01	1-216-296-91	METAL GLAZE 0 5%	1/8W
JR02	1-216-296-91	METAL GLAZE 0 5%	1/8W
JR03	1-216-295-00	METAL GLAZE 0 5%	1/10W
JR04	1-216-296-91	METAL GLAZE 0 5%	1/8W
JR05	1-216-295-00	METAL GLAZE 0 5%	1/10W
JR07	1-216-295-00	METAL GLAZE 0 5%	1/10W
R01	1-216-029-00	METAL GLAZE 150 5%	1/10W
R02	1-216-089-91	METAL GLAZE 47K 5%	1/10W
R03	1-216-089-91	METAL GLAZE 47K 5%	1/10W
R04	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R05	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R06	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R07	1-216-025-91	METAL GLAZE 100 5%	1/10W
R08	1-216-174-00	METAL GLAZE 100 5%	1/8W
R09	1-216-045-00	METAL GLAZE 680 5%	1/10W
R10	1-216-041-00	METAL GLAZE 470 5%	1/10W
R11	1-216-051-00	METAL GLAZE 1.2K 5%	1/10W

REF.NO.	PART NO.	DESCRIPTION	REMARK
R23	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R24	1-216-295-91	METAL GLAZE 0 5%	1/10W
R25	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R021	1-216-174-00	METAL GLAZE 100 5%	1/8W
< VARIABLE RESISTOR >			
RV01	1-226-703-11	RES, ADJ, METAL GLAZE 10K	

	A-1652-036-A	IF BOARD, COMPLETE (KV-29X1B) *****	
< CAPACITOR >			
C01	1-162-638-11	CERAMIC CHIP 1MF	16V
C02	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C03	1-104-957-11	ELECT 47MF	20% 16V
C04	1-135-259-11	TANTAL. CHIP 10MF	20% 6.3V
C05	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C06	1-164-005-11	CERAMIC CHIP 0.47MF	16V
C08	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C09	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C10	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C11	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C12	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C13	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C14	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C15	1-104-957-11	ELECT 47MF	20% 16V
C16	1-162-638-11	CERAMIC CHIP 1MF	16V
C17	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
C18	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C20	1-124-937-11	ELECT 10MF	20% 16V
C21	1-164-506-11	CERAMIC CHIP 4.7MF	16V
< FILTER >			
CF01	1-409-430-11	TRAP, CERAMIC	
SWF01	1-579-273-11	FILTER, SURFACE WAVE	
SWF02	1-760-329-11	FILTER, SURFACE WAVE	
SWF03	1-767-083-11	FILTER, SURFACE WAVE	
< TRIMMER >			
CT01	1-760-662-11	TRAP, CERAMIC	
< IC >			
IC01	8-759-069-36	IC MC74HC4046AF	
< COIL >			
L02	1-408-406-00	INDUCTOR 5.6UH	
L04	1-408-419-00	INDUCTOR 68UH	
L05	1-410-987-11	INDUCTOR CHIP 0.33UH	
L06	1-408-399-00	INDUCTOR 1.5UH	
< VARIABLE COIL >			
LV01	1-411-874-11	COIL	
< TRANSISTOR >			
Q01	8-729-216-22	TRANSISTOR 2SA1162-G	
Q02	8-729-035-11	TRANSISTOR BF799-GEG	
Q03	8-729-035-11	TRANSISTOR BF799-GEG	
Q04	8-729-901-01	TRANSISTOR DTC144EK	

Les composants identifiés par une trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.


The components identified by shading and marked  are critical for safety. Replace only with the part number specified.


IF(KV-29X1B)

C

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
< RESISTOR >				< DIODE >			
JR01	1-216-296-91	METAL GLAZE 0	5% 1/8W	D701	8-719-109-72	DIODE RD3.9ES-B2	
JR02	1-216-296-91	METAL GLAZE 0	5% 1/8W	D702	8-719-991-33	DIODE 1SS133T-77	
JR03	1-216-295-00	METAL GLAZE 0	5% 1/10W	D706	8-719-991-33	DIODE 1SS133T-77	
JR04	1-216-296-91	METAL GLAZE 0	5% 1/8W	D707	8-719-991-33	DIODE 1SS133T-77	
JR05	1-216-295-00	METAL GLAZE 0	5% 1/10W	D708	8-719-991-33	DIODE 1SS133T-77	
JR07	1-216-295-00	METAL GLAZE 0	5% 1/10W	D709	8-719-991-33	DIODE 1SS133T-77	
R01	1-216-029-00	METAL GLAZE 150	5% 1/10W	D710	8-719-991-33	DIODE 1SS133T-77	
R02	1-216-089-91	METAL GLAZE 47K	5% 1/10W	D711	8-719-302-43	DIODE EL1Z	
R03	1-216-089-91	METAL GLAZE 47K	5% 1/10W	D714	8-719-991-33	DIODE 1SS133T-77	
R04	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	D715	8-719-991-33	DIODE 1SS133T-77	
R05	1-216-081-00	METAL GLAZE 22K	5% 1/10W	D716	8-719-991-33	DIODE 1SS133T-77	
R06	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	D717	8-719-991-33	DIODE 1SS133T-77	
R07	1-216-025-91	METAL GLAZE 100	5% 1/10W	D718	8-719-991-33	DIODE 1SS133T-77	
R08	1-216-174-00	METAL GLAZE 100	5% 1/8W	D719	8-719-991-33	DIODE 1SS133T-77	
R09	1-216-045-00	METAL GLAZE 680	5% 1/10W	D720	8-719-991-33	DIODE 1SS133T-77	
R10	1-216-041-00	METAL GLAZE 470	5% 1/10W	< CRT SOCKET >			
R11	1-216-051-00	METAL GLAZE 1.2K	5% 1/10W	D701 1-526-990-22 SOCKET, CRT			
R12	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W	< COIL >			
R13	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	L704	1-408-609-41	INDUCTOR 33UH	
R14	1-216-023-00	METAL GLAZE 82	5% 1/10W	< TRANSISTOR >			
R15	1-216-017-91	METAL GLAZE 47	5% 1/10W	Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE	
R16	1-216-033-00	METAL GLAZE 220	5% 1/10W	Q703	8-729-906-70	TRANSISTOR BF871-127	
R17	1-216-017-91	METAL GLAZE 47	5% 1/10W	Q704	8-729-200-17	TRANSISTOR 2SA1091-0	
R18	1-216-013-00	METAL GLAZE 33	5% 1/10W	Q705	8-729-119-78	TRANSISTOR 2SC2785-HFE	
R20	1-216-222-00	METAL GLAZE 10K	5% 1/8W	Q706	8-729-906-70	TRANSISTOR BF871-127	
R23	1-216-049-91	METAL GLAZE 1K	5% 1/10W	Q707	8-729-200-17	TRANSISTOR 2SA1091-0	
R25	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	Q708	8-729-119-78	TRANSISTOR 2SC2785-HFE	
R21	1-216-174-00	METAL GLAZE 100	5% 1/8W	Q709	8-729-906-70	TRANSISTOR BF871-127	
< VARIABLE RESISTOR >				Q710	8-729-200-17	TRANSISTOR 2SA1091-0	
RV01	1-226-703-11	RES, ADJ, METAL GLAZE 10K		Q711	8-729-173-38	TRANSISTOR 2SA733-K	
RV02	1-226-703-11	RES, ADJ, METAL GLAZE 10K		< RESISTOR >			
*****				R704	1-216-486-00	METAL OXIDE 8.2K 5% 3W	F
*A-1638-082-A C BOARD, COMPLETE				R705	1-260-103-11	CARBON 2.2K 5% 1/2W	
*****				R706	1-247-815-91	CARBON 220 5% 1/4W	
< CAPACITOR >				R707	1-249-408-11	CARBON 180 5% 1/4W	
C702	1-102-824-00	CERAMIC 470PF	5% 50V	R709	1-202-844-00	SOLID 330K 10% 1/2W	
C703	1-102-116-00	CERAMIC 680PF	10% 50V	R711	1-249-423-11	CARBON 3.3K 5% 1/4W	
C708	1-162-114-00	CERAMIC 0.0047MF	2KV	R712	1-260-103-11	CARBON 2.2K 5% 1/2W	
C710	1-107-652-11	ELECT 10MF	20% 250V	R714	1-216-486-00	METAL OXIDE 8.2K 5% 3W	F
C712	1-102-116-00	CERAMIC 680PF	10% 50V	R715	1-249-417-11	CARBON 1K 5% 1/4W	
C714	1-126-967-11	ELECT 47MF	20% 16V	R716	1-247-815-91	CARBON 220 5% 1/4W	
C717	1-102-114-00	CERAMIC 470PF	10% 50V	R717	1-249-408-11	CARBON 180 5% 1/4W	
C718	1-102-114-00	CERAMIC 470PF	10% 50V	R718	1-202-814-11	SOLID 33K 10% 1/2W	
C719	1-102-114-00	CERAMIC 470PF	10% 50V	R720	1-249-423-11	CARBON 3.3K 5% 1/4W	
C722	1-101-880-00	CERAMIC 47PF	5% 50V	R722	1-202-848-00	SOLID 680K 10% 1/2W	
C723	1-101-880-00	CERAMIC 47PF	5% 50V	R723	1-249-417-11	CARBON 1K 5% 1/4W	
C724	1-101-880-00	CERAMIC 47PF	5% 50V	R724	1-202-846-00	SOLID 470K 10% 1/2W	
< CONNECTOR >				R726	1-260-103-11	CARBON 2.2K 5% 1/2W	
CN701	1-778-037-11	PIN, CONNECTOR 6P		R727	1-247-815-91	CARBON 220 5% 1/4W	
CN702	1-695-915-11	TAB (CONTACT)		R728	1-216-350-11	METAL OXIDE 1.2 5% 1W	F
CN703	*1-568-882-51	PIN, CONNECTOR 7P		R729	1-249-408-11	CARBON 180 5% 1/4W	
				R731	1-249-423-11	CARBON 3.3K 5% 1/4W	
				R733	1-249-415-11	CARBON 680 5% 1/4W	
				R734	1-247-807-31	CARBON 100 5% 1/4W	
				R735	1-249-415-11	CARBON 680 5% 1/4W	

C **D2** **D**

Les composants identifiés par
une trame et une marque 
sont critiques pour la sécurité.
Ne les remplacer que par une
pièce portant le numéro spécifié.

The components identified by
shading and marked 
are critical
for safety.
Replace only with the part number
specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R736	1-216-486-00	METAL OXIDE 8.2K 5% 3W F		C509	1-136-165-00	FILM 0.1MF 5% 50V	
R739	1-249-417-11	CARBON 1K 5% 1/4W		C510	1-126-969-11	ELECT 220MF 20% 50V	
R740	1-249-415-11	CARBON 680 5% 1/4W		C511	1-136-202-11	FILM 0.33MF 5% 63V	
R741	1-202-549-00	SOLID 100 20% 1/2W		C513	1-106-220-00	MYLAR 0.1MF 10% 100V	
R744	1-249-421-11	CARBON 2.2K 5% 1/4W		C514	1-136-165-00	FILM 0.1MF 5% 50V	
R745	1-249-421-11	CARBON 2.2K 5% 1/4W		C515	1-126-941-11	ELECT 470MF 20% 25V	
R746	1-249-421-11	CARBON 2.2K 5% 1/4W		C517	1-126-941-11	ELECT 470MF 20% 25V	
R747	1-249-437-11	CARBON 47K 5% 1/4W		C518	1-102-228-00	CERAMIC 470PF 10% 500V	
R748	1-249-417-11	CARBON 1K 5% 1/4W		C519	1-102-228-00	CERAMIC 470PF 10% 500V	
R749	1-249-435-11	CARBON 33K 5% 1/4W		C520	1-126-941-11	ELECT 470MF 20% 25V	
< VARIABLE RESISTOR >				C521	1-124-006-11	ELECT 10MF 20% 25V	
RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M		C522	1-126-964-11	ELECT 10MF 20% 50V	
RV702	1-241-656-21	RES, ADJ, METAL FILM 110M		C523	1-136-165-00	FILM 0.1MF 5% 50V	
*****				C600	1-113-890-51	ELECT 0.0022MF 20% 250V	
*A-1640-214-A D2 BOARD, COMPLETE				C601	1-161-964-91	CERAMIC 0.0047MF 250V	
*****				C602	1-161-964-91	CERAMIC 0.0047MF 250V	
< CAPACITOR >				C603	1-125-555-11	ELECT 330MF 20% 400V	
C1801	1-126-967-11	ELECT 47MF 20% 50V		C604	1-126-968-11	ELECT 100MF 20% 50V	
C1803	1-137-368-11	FILM 0.0047MF 5% 50V		C605	1-107-929-11	ELECT 10MF 20% 100V	
C1804	1-126-964-11	ELECT 10MF 20% 50V		C606	1-162-318-11	CERAMIC 0.001MF 10% 500V	
C1807	1-137-366-11	FILM 0.0022MF 5% 50V		C607	1-104-666-11	ELECT 220MF 20% 25V	
< CONNECTOR >				C608	1-109-880-11	FILM 0.0015MF 3% 2KV	
CN1801	1-573-299-21	CONNECTOR, BOARD TO BOARD 10P		C611	1-102-228-00	CERAMIC 470PF 10% 500V	
CN1803	*1-568-878-51	PIN, CONNECTOR 3P		C612	1-111-160-11	ELECT 22MF 20% 100V	
< DIODE >				C613	1-124-347-00	ELECT 100MF 20% 160V	
D1802	8-719-110-17	DIODE RD10ESB2		C614	1-128-526-11	ELECT 100MF 20% 25V	
< IC >				C615	1-111-067-11	ELECT 0.001F 20% 25V	
IC1801	8-759-701-59	IC MCT7809CT		C616	1-111-067-11	ELECT 0.001F 20% 25V	
IC1802	8-759-603-37	IC M5216P		C617	1-128-339-11	ELECT 2200MF 20% 16V	
< IC LINK >				C618	1-136-165-00	FILM 0.1MF 5% 50V	
JM1802	1-532-605-91	LINK, IC 0.4A 11CP-F10		C619	1-102-228-00	CERAMIC 470PF 10% 500V	
< RESISTOR >				C620	1-102-228-00	CERAMIC 470PF 10% 500V	
R1807	1-247-883-00	CARBON 150K 5% 1/4W		C621	1-136-165-00	FILM 0.1MF 5% 50V	
R1809	1-249-429-11	CARBON 10K 5% 1/4W		C622	1-104-797-11	ELECT 0.47MF 20% 100V	
R1810	1-249-429-11	CARBON 10K 5% 1/4W		C623	1-104-666-11	ELECT 220MF 20% 25V	
R1811	1-249-429-11	CARBON 10K 5% 1/4W		C624	1-136-165-00	FILM 0.1MF 5% 50V	
R1812	1-249-429-11	CARBON 10K 5% 1/4W		C625	1-126-967-11	ELECT 47MF 20% 50V	
*****				C626	1-104-666-11	ELECT 220MF 20% 25V	
*A-1642-165-A D BOARD, COMPLETE				C628	1-126-964-11	ELECT 10MF 20% 50V	
*****				C629	1-111-097-11	ELECT 0.0022F 20% 35V	
4-201-023-01 SPACER, INSULATING				C630	1-111-097-11	ELECT 0.0022F 20% 35V	
4-202-373-01 SPRING, IC				C631	1-126-965-11	ELECT 22MF 20% 50V	
< CAPACITOR >				C632	1-104-666-11	ELECT 220MF 20% 25V	
C502	1-102-824-00	CERAMIC 470PF 5% 50V		C633	1-107-564-11	FILM 0.22MF 20% 300V	
C503	1-136-165-00	FILM 0.1MF 5% 50V		C634	1-107-564-11	FILM 0.22MF 20% 300V	
C504	1-102-824-00	CERAMIC 470PF 5% 50V		C635	1-107-564-11	FILM 0.22MF 20% 300V	
C506	1-126-941-11	ELECT 470MF 20% 25V		C636	1-113-890-51	ELECT 0.0022MF 20% 250V	
C507	1-109-953-11	ELECT 2.2MF 20% 50V		C640	1-106-220-00	MYLAR 0.1MF 10% 100V	
				C647	1-162-116-00	CERAMIC 680PF 10% 2KV	
				C651	1-102-228-00	CERAMIC 470PF 10% 500V	
				C800	1-137-368-11	FILM 0.0047MF 5% 50V	
				C801	1-137-372-11	FILM 0.022MF 5% 50V	
				C802	1-136-153-00	FILM 0.01MF 5% 50V	
				C804	1-136-165-00	FILM 0.1MF 5% 50V	
				C805	1-136-207-11	FILM 0.047MF 10% 250V	
				C806	1-104-999-11	MYLAR 0.1MF 10% 200V	
				C807	1-136-109-00	FILM 0.68MF 5% 200V	
				C808	1-137-205-11	FILM 0.1MF 5% 400V	
				C810	1-107-683-11	ELECT 2.2MF 0 250V	
				C811	1-102-212-00	CERAMIC 820PF 10% 500V	


Les composants identifiés par une trame et une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.


The components identified by shading and marked are critical for safety. Replace only with the part number specified.




REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C812	1-136-125-00	FILM 0.68MF 5%	400V	CN1420	*1-568-878-51	PIN, CONNECTOR 3P	
C813	1-129-722-00	FILM 0.047MF 10%	630V			< DIODE >	
C814	1-136-565-11	FILM 0.015MF 3%	1.4KV	D500	8-719-109-85	DIODE RD5.1ES-B2	
C815	1-136-562-11	MYLAR 0.0082MF 10%	400V	D502	8-719-979-85	DIODE EGP20G	
C816	1-161-754-00	CERAMIC 0.001MF 10%	2KV	D503	8-719-979-85	DIODE EGP20G	
C817	1-161-754-00	CERAMIC 0.001MF 10%	2KV	D504	8-719-991-33	DIODE 1SS133T-77	
C818	1-162-134-11	CERAMIC 470PF 10%	2KV	D505	8-719-982-03	DIODE MTZJ-3.6A	
C819	1-136-208-11	FILM 0.068MF 10%	250V	D506	8-719-991-33	DIODE 1SS133T-77	
C820	1-102-114-00	CERAMIC 470PF 10%	50V	D507	8-719-109-85	DIODE RD5.1ES-B2	
C821	1-162-114-00	CERAMIC 0.0047MF 10%	2KV	D600	8-719-510-53	DIODE D4SB60L	
C822	1-107-662-11	ELECT 22MF 20%	250V	D601	8-719-046-77	DIODE EM1-V1	
C824	1-123-024-21	ELECT 33MF 10%	160V	D603	8-719-109-97	DIODE RD6.8ES-B2	
C829	1-124-902-00	ELECT 0.47MF 20%	50V	D604	8-719-046-75	DIODE EU-1-V1	
C830	1-124-902-00	ELECT 0.47MF 20%	50V	D605	8-719-302-43	DIODE EL1Z	
C832	1-124-903-11	ELECT 1MF 20%	50V	D606	8-719-302-43	DIODE EL1Z	
C834	1-128-551-11	ELECT 22MF 20%	25V	D607	8-719-046-78	DIODE EG-1Z-V1	
C835	1-162-318-11	CERAMIC 0.001MF 10%	500V	D608	8-719-312-94	DIODE EU2-V1	
C836	1-162-117-00	CERAMIC 100PF 10%	500V	D609	8-719-301-64	DIODE RU4DS	
C838	1-102-228-00	CERAMIC 470PF 10%	500V	D610	8-719-046-74	DIODE AU-01Z-V1	
C839	1-136-189-00	FILM 0.1MF 10%	250V	D611	8-719-045-48	DIODE FML-G12S	
C845	1-102-110-00	CERAMIC 220PF 10%	50V	D612	8-719-046-76	DIODE RU-3YX-V1	
C901	1-101-810-00	CERAMIC 100PF 5%	500V	D613	8-719-045-48	DIODE FML-G12S	
C902	1-137-372-11	FILM 0.022MF 5%	50V	D614	8-719-045-48	DIODE FML-G12S	
C903	1-137-372-11	FILM 0.022MF 5%	50V	D615	8-719-046-75	DIODE EU-1-V1	
C904	1-104-665-11	ELECT 100MF 20%	25V	D616	8-719-110-03	DIODE RD7.5ESB2	
C905	1-126-964-11	ELECT 10MF 20%	50V	D617	8-719-991-33	DIODE 1SS133T-77	
C906	1-126-964-11	ELECT 10MF 20%	50V	D618	8-719-991-33	DIODE 1SS133T-77	
C907	1-126-964-11	ELECT 10MF 20%	50V	D619	8-719-991-33	DIODE 1SS133T-77	
C908	1-126-964-11	ELECT 10MF 20%	50V	D620	8-719-991-33	DIODE 1SS133T-77	
C911	1-126-964-11	ELECT 10MF 20%	50V	D622	8-719-923-60	DIODE MTZJ-T-77-9.1A	
C913	1-101-810-00	CERAMIC 100PF 5%	500V	D625	8-719-991-33	DIODE 1SS133T-77	
C1200	1-136-165-00	FILM 0.1MF 5%	50V	D626	8-719-046-74	DIODE AU-01Z-V1	
C1201	1-136-173-00	FILM 0.47MF 5%	50V	D631	8-719-109-93	DIODE RD6.2ES-B2	
C1202	1-136-173-00	FILM 0.47MF 5%	50V	D800	8-719-991-33	DIODE 1SS133T-77	
C1203	1-136-169-00	FILM 0.22MF 5%	50V	D801	8-719-991-33	DIODE 1SS133T-77	
C1204	1-136-169-00	FILM 0.22MF 5%	50V	D802	8-719-991-33	DIODE 1SS133T-77	
C1205	1-101-005-00	CERAMIC 0.022MF 50V		D803	8-719-908-03	DIODE GP08D	
C1206	1-101-005-00	CERAMIC 0.022MF 50V		D807	8-719-302-43	DIODE EL1Z	
C1207	1-126-933-11	ELECT 100MF 20%	16V	D808	8-719-908-03	DIODE GP08D	
C1208	1-126-963-11	ELECT 4.7MF 20%	50V	D809	8-719-018-82	DIODE RGP02-20EL-6394	
C1209	1-126-963-11	ELECT 4.7MF 20%	50V	D810	8-719-302-43	DIODE EL1Z	
C1214	1-126-933-11	ELECT 100MF 20%	16V	D812	8-719-038-49	DIODE FMS-3FU-LF027-1	
C1215	1-136-173-00	FILM 0.47MF 5%	50V	D815	8-719-908-03	DIODE GP08D	
C1216	1-137-366-11	FILM 0.0022MF 5%	50V	D817	8-719-109-89	DIODE RD5.6ESB2	
C1217	1-137-366-11	FILM 0.0022MF 5%	50V	D901	8-719-030-11	DIODE SLA-570KT3F	
C1218	1-126-934-11	ELECT 220MF 20%	16V		*4-203-258-01	HOLDER, LED	
		< CONNECTOR >		D902	8-719-923-60	DIODE MTZJ-T-77-9.1A	
CN600	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P		D903	8-719-923-60	DIODE MTZJ-T-77-9.1A	
CN601	1-508-765-11	PIN, CONNECTOR (5MM PITCH) 3P		D904	8-719-923-60	DIODE MTZJ-T-77-9.1A	
CN603	*1-580-844-11	PIN, CONNECTOR (POWER)		D905	8-719-923-60	DIODE MTZJ-T-77-9.1A	
CN800	*1-580-798-11	CONNECTOR PIN (DY) 6P		D906	8-719-923-60	DIODE MTZJ-T-77-9.1A	
CN801	*1-573-296-21	CONNECTOR, BOARD TO BOARD 10P		D1201	8-719-109-72	DIODE RD3.9ES-B2	
CN803	1-695-915-11	TAB (CONTACT)				< FUSE >	
CN804	1-778-037-11	PIN, CONNECTOR 6P		F601	1-576-232-21	FUSE (H.B.C.) 5.0A/250V	
CN807	1-568-878-51	PIN, CONNECTOR 3P			1-533-230-02	HOLDER, FUSE : F601	
CN900	1-568-678-11	TERMINAL BLOCK, S 3P				< FERRITE BEAD >	
CN902	1-695-299-11	CONNECTOR, BOARD TO BOARD 50P		FB600	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
CN1401	*1-568-880-51	PIN, CONNECTOR 5P					
CN1408	*1-568-879-11	PIN, CONNECTOR 4P					


D

Les composants identifiés par une trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and marked  are critical for safety. Replace only with the part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
FB601	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH		Q604	8-729-024-35	TRANSISTOR 2SC2808STP-R	
FB602	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH		Q605	8-729-119-78	TRANSISTOR 2SC2785-HFE	
FB604	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH		Q606	8-729-900-65	TRANSISTOR DTA144ES	
FB605	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH		Q607	8-729-119-78	TRANSISTOR 2SC2785-HFE	
FB606	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH		Q800	8-729-119-78	TRANSISTOR 2SC2785-HFE	
FB607	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH		Q801	8-729-017-06	TRANSISTOR 2SC4793	
FB608	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH		Q802	8-729-016-32	TRANSISTOR 2SC4927-01	
FB800	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH		Q803	8-729-119-80	TRANSISTOR 2SC2688-LK	
< IC >				Q805	8-729-900-89	TRANSISTOR DTC144ES	
IC500	8-759-192-71	IC STV9379		Q900	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC600	8-749-010-84	IC STR-S6708		Q1200	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC601	8-719-924-92	IC MLP721(D4)		Q1201	8-729-900-74	TRANSISTOR DTC143TS	
IC602	8-749-920-61	IC SE-135N		Q1202	8-729-900-80	TRANSISTOR DTC114ES	
IC603	8-759-144-82	IC MPC2405HF		Q1203	8-729-900-74	TRANSISTOR DTC143TS	
IC604	8-759-366-13	IC L4941BV		Q1204	8-729-900-74	TRANSISTOR DTC143TS	
IC606	8-759-267-25	IC LM2940T-9.0		< RESISTOR >			
IC800	8-759-103-93	IC MPC393P		R500	1-215-457-00	METAL 33K 1%	1/4W
IC900	8-747-905-11	RAY CATCHER ELEMENT SBX1790-51		R502	1-249-421-11	CARBON 2.2K 5%	1/4W
IC1200	8-759-250-68	IC TDA7264		R503	1-249-429-11	CARBON 10K 5%	1/4W
IC1201	8-759-502-21	IC TDA2822M		R504	1-215-455-00	METAL 27K 1%	1/4W
< JACK >				R505	1-249-382-11	CARBON 1.2 5%	1/4W F
J900	1-764-606-11	JACK		R506	1-215-439-00	METAL 5.6K 1%	1/4W
< COIL >				R507	1-215-888-00	METAL OXIDE 220 5%	2W F
L502	1-412-519-11	INDUCTOR 3.3UH		R508	1-216-371-00	METAL OXIDE 1.5 5%	2W F
L503	1-412-519-11	INDUCTOR 3.3UH		R509	1-249-443-11	CARBON 0.47 5%	1/4W F
L609	1-412-533-21	INDUCTOR 47UH		R510	1-249-443-11	CARBON 0.47 5%	1/4W F
L611	1-412-527-11	INDUCTOR 15UH		R520	1-215-457-00	METAL 33K 1%	1/4W
L612	1-412-522-41	INDUCTOR 5.6UH		R521	1-215-455-00	METAL 27K 1%	1/4W
L613	1-412-522-41	INDUCTOR 5.6UH		R522	1-247-863-91	CARBON 22K 5%	1/4W
L615	1-412-529-11	INDUCTOR 22UH		R523	1-247-863-91	CARBON 22K 5%	1/4W
L616	1-412-533-21	INDUCTOR 47UH		R524	1-249-425-11	CARBON 4.7K 5%	1/4W
L801	1-459-111-00	COIL, DRAM CORE (CDI)		R525	1-249-425-11	CARBON 4.7K 5%	1/4W
L802	1-459-104-00	COIL, WITH CORE		R526	1-249-421-11	CARBON 2.2K 5%	1/4W
L803	1-420-872-00	COIL, AIR CORE		R527	1-215-437-00	METAL 4.7K 1%	1/4W
L804	1-406-903-11	COIL, HORIZONTAL LINEARITY		R600	1-216-490-11	METAL OXIDE 39K 5%	3W F
L805	1-406-675-11	COIL, CHOKE 4.7MMH		R601	1-249-417-11	CARBON 1K 5%	1/4W
L809	1-412-533-21	INDUCTOR 47UH		R602	1-215-473-00	METAL 150K 1%	1/4W
L811	1-406-979-11	COIL, CHOKE 220UH		R603	1-215-898-11	METAL OXIDE 10K 5%	2W F
L813	1-412-552-11	INDUCTOR 2.2MMH		R604	1-249-420-11	CARBON 1.8K 5%	1/4W
L901	1-408-603-31	INDUCTOR 10UH		R605	1-216-362-11	METAL OXIDE 0.27 5%	2W F
L902	1-408-603-31	INDUCTOR 10UH		R607	1-216-421-11	METAL OXIDE 12 5%	1W F
L903	1-408-409-00	INDUCTOR 10UH		R608	1-216-365-00	METAL OXIDE 0.47 5%	2W F
L904	1-408-409-00	INDUCTOR 10UH		R610	1-215-421-00	METAL 1K 1%	1/4W
< IC LINK >				R611	1-216-354-11	METAL OXIDE 2.7 5%	1W F
PS600	1-532-686-91	LINK, IC 2.7A (ICP-F75)		R612	1-249-428-11	CARBON 8.2K 5%	1/4W
PS601	1-532-686-91	LINK, IC 2.7A (ICP-F75)		R613	1-249-417-11	CARBON 1K 5%	1/4W
PS602	1-532-686-91	LINK, IC 2.7A (ICP-F75)		R614	1-215-877-11	METAL OXIDE 22K 5%	1W F
PS603	1-532-686-91	LINK, IC 2.7A (ICP-F75)		R615	1-249-435-11	CARBON 33K 5%	1/4W
< TRANSISTOR >				R616	1-215-471-00	METAL 120K 1%	1/4W
Q501	8-729-119-78	TRANSISTOR 2SC2785-HFE		R617	1-215-901-00	METAL OXIDE 33K 5%	2W F
Q502	8-729-119-76	TRANSISTOR 2SA1175-HFE		R618	1-247-863-91	CARBON 22K 5%	1/4W
Q503	8-729-900-89	TRANSISTOR DTC144ES		R619	1-216-425-11	METAL OXIDE 56 5%	1W F
Q601	8-729-025-04	TRANSISTOR 2SC3852A		R620	1-260-131-11	CARBON 470K 5%	1/2W
Q602	8-729-320-28	TRANSISTOR 2SA1667		R621	1-216-425-11	METAL OXIDE 56 5%	1W F
Q603	8-729-802-78	TRANSISTOR 2SC3502-E		R622	1-249-437-11	CARBON 47K 5%	1/4W
				R623	1-249-429-11	CARBON 10K 5%	1/4W
				R624	1-249-393-11	CARBON 10 5%	1/4W F
				R625	1-249-434-11	CARBON 27K 5%	1/4W
				R626	1-249-430-11	CARBON 12K 5%	1/4W

Les composants identifiés par une trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.


The components identified by shading and marked  are critical for safety. Replace only with the part number specified.


D

VM

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R627	1-216-347-11	METAL OXIDE	0.68 5% 1W F	R908	1-249-401-11	CARBON	47 5% 1/4W
R628	1-249-415-11	CARBON	680 5% 1/4W F	R909	1-249-429-11	CARBON	10K 5% 1/4W
R629	1-249-945-11	CARBON	1M 5% 1/2W	R910	1-249-422-11	CARBON	2.7K 5% 1/4W
R630	1-218-265-21	METAL	8.2M 5% 1W	R911	1-249-426-11	CARBON	5.6K 5% 1/4W
R631	1-205-949-11	WIREWOUND	1.8 5% 10W	R912	1-249-429-11	CARBON	10K 5% 1/4W
R632	1-247-807-31	CARBON	100 5% 1/4W	R913	1-247-863-91	CARBON	22K 5% 1/4W
R633	1-247-807-31	CARBON	100 5% 1/4W	R914	1-249-437-11	CARBON	47K 5% 1/4W
R634	1-249-397-11	CARBON	22 5% 1/4W F	R919	1-249-437-11	CARBON	47K 5% 1/4W
R635	1-249-437-11	CARBON	47K 5% 1/4W	R921	1-249-437-11	CARBON	47K 5% 1/4W
R636	1-249-417-11	CARBON	1K 5% 1/4W	R922	1-247-807-31	CARBON	100 5% 1/4W
R637	1-247-815-91	CARBON	220 5% 1/4W	R923	1-249-412-11	CARBON	390 5% 1/4W
R638	1-247-863-91	CARBON	22K 5% 1/4W	R1200	1-249-425-11	CARBON	4.7K 5% 1/4W
R639	1-215-439-00	METAL	5.6K 1% 1/4W	R1201	1-249-434-11	CARBON	27K 5% 1/4W
R642	1-205-949-11	WIREWOUND	1.8 5% 10W	R1202	1-249-389-11	CARBON	4.7 5% 1/4W F
R645	1-249-422-11	CARBON	2.7K 5% 1/4W	R1203	1-249-421-11	CARBON	2.2K 5% 1/4W
R646	1-249-377-11	CARBON	0.47 5% 1/4W F	R1204	1-249-421-11	CARBON	2.2K 5% 1/4W
R647	1-202-933-61	FUSIBLE	0.1 10% 1/2W F	R1205	1-249-428-11	CARBON	8.2K 5% 1/4W
R800	1-249-421-11	CARBON	2.2K 5% 1/4W	R1206	1-249-428-11	CARBON	8.2K 5% 1/4W
R802	1-247-863-91	CARBON	22K 5% 1/4W	R1208	1-212-849-00	FUSIBLE	4.7 5% 1/4W F
R803	1-249-424-11	CARBON	3.9K 5% 1/4W	R1209	1-212-849-00	FUSIBLE	4.7 5% 1/4W F
R805	1-249-429-11	CARBON	10K 5% 1/4W	R1211	1-249-424-11	CARBON	3.9K 5% 1/4W
R809	1-249-441-11	CARBON	100K 5% 1/4W	R1212	1-249-424-11	CARBON	3.9K 5% 1/4W
R812	1-249-421-11	CARBON	2.2K 5% 1/4W	R1213	1-249-421-11	CARBON	2.2K 5% 1/4W
R813	1-215-867-00	METAL OXIDE	470 5% 1W F	R1216	1-249-413-11	CARBON	470 5% 1/4W
R814	1-249-411-11	CARBON	330 5% 1/4W	R1217	1-249-425-11	CARBON	4.7K 5% 1/4W
R816	1-215-917-11	METAL OXIDE	1K 5% 3W F	< RELAY >			
R817	1-216-481-11	METAL OXIDE	1.2K 5% 3W F	R1600	1-755-010-11	RELAY	
R818	1-215-882-00	METAL OXIDE	22 5% 2W F	< SWITCH >			
R819	1-216-345-11	METAL OXIDE	0.47 5% 1W F	S601	1-571-433-21	SWITCH, PUSH (AC POWER)	
R820	1-249-403-11	CARBON	68 5% 1/4W	S900	1-692-979-11	SWITCH, TACTILE	
R821	1-215-909-11	METAL OXIDE	47 5% 3W F	S901	1-692-979-11	SWITCH, TACTILE	
R822	1-215-868-00	METAL OXIDE	680 5% 1W F	S902	1-692-979-11	SWITCH, TACTILE	
R824	1-249-420-11	CARBON	1.8K 5% 1/4W	< SPARK GAP >			
R826	1-247-752-11	CARBON	1K 5% 1/2W	SG801	1-519-422-11	GAP, SPARK	
R827	1-249-425-11	CARBON	4.7K 5% 1/4W	< TRANSFORMER >			
R828	1-249-430-11	CARBON	12K 5% 1/4W	LP600	1-421-776-11	LPT	
R829	1-249-493-11	CARBON	56K 5% 1/2W	LP601	1-421-776-11	LPT	
R830	1-217-778-11	FUSIBLE	1K 5% 1W F	T601	1-429-603-11	TRANSFORMER, CONVERTER	
R833	1-247-887-00	CARBON	220K 5% 1/4W	T800	1-424-545-11	TRANSFORMER, FERRITE (PMT)	
R835	1-216-471-11	METAL OXIDE	27 5% 3W F	T803	1-453-169-11	TRANSFORMER ASSY, FLYBACK (UX-1604A2)	
R836	1-249-439-11	CARBON	68K 5% 1/4W	T804	1-437-090-31	HDT	
R837	1-249-427-11	CARBON	6.8K 5% 1/4W	< THERMISTOR >			
R840	1-247-807-31	CARBON	100 5% 1/4W	TH600	1-809-821-11	THERMISTOR, POSITIVE	
R841	1-249-418-11	CARBON	1.2K 5% 1/4W	*****			
R842	1-249-425-11	CARBON	4.7K 5% 1/4W	*A-1644-070-A VM BOARD, COMPLETE			
R843	1-249-441-11	CARBON	100K 5% 1/4W	*****			
R846	1-247-885-00	CARBON	180K 5% 1/4W	*4-368-683-11 SPRING, TRANSISTOR			
R847	1-247-895-91	CARBON	470K 5% 1/4W	*4-368-683-21 SPRING, TRANSISTOR			
R848	1-247-863-91	CARBON	22K 5% 1/4W	< CAPACITOR >			
R849	1-249-429-11	CARBON	10K 5% 1/4W	C1701	1-126-933-11	ELECT	100MF 20% 16V
R850	1-249-425-11	CARBON	4.7K 5% 1/4W	C1702	1-128-551-11	ELECT	22MF 20% 25V
R851	1-215-898-11	METAL OXIDE	10K 5% 2W F				
R852	1-249-432-11	CARBON	18K 5% 1/4W				
R900	1-247-815-91	CARBON	220 5% 1/4W				
R901	1-247-734-11	CARBON	39 5% 1/2W				
R902	1-247-734-11	CARBON	39 5% 1/2W				
R904	1-249-389-11	CARBON	4.7 5% 1/4W F				
R905	1-247-804-11	CARBON	75 5% 1/4W				
R906	1-247-804-11	CARBON	75 5% 1/4W				
R907	1-247-804-11	CARBON	75 5% 1/4W				

VM

Les composants identifiés par une trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and marked  are critical for safety. Replace only with the part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
C1703	1-126-933-11	ELECT 100MF	20%
C1704	1-107-357-11	FILM 0.47MF	5%
C1705	1-107-638-11	ELECT 33MF	20%
C1706	1-104-999-11	FILM 0.1MF	5%
C1707	1-137-397-11	FILM 0.047MF	5%
C1708	1-137-364-11	FILM 0.001MF	5%
C1709	1-137-364-11	FILM 0.001MF	5%
C1710	1-102-074-00	CERAMIC 0.001MF	10%
C1720	1-107-667-11	ELECT 2.2MF	20%
C1721	1-137-397-11	FILM 0.047MF	5%
C1722	1-126-934-11	ELECT 220MF	20%
C1723	1-161-830-00	CERAMIC 0.0047MF	500V
C1725	1-128-551-11	ELECT 22MF	20%
C1726	1-126-934-11	ELECT 220MF	20%
< CONNECTOR >			
CN1015	*1-568-880-51	PIN, CONNECTOR 5P	
CN1718	1-774-418-11	CONNECTOR, BOARD TO BOARD 8P	
< DIODE >			
D1701	8-719-991-33	DIODE 1SS133T-77	
D1702	8-719-110-88	DIODE RD39ES-B2	
D1703	8-719-110-88	DIODE RD39ES-B2	
< COIL >			
L1701	1-408-409-00	INDUCTOR 10UH	
L1702	1-408-403-00	INDUCTOR 3.3UH	
L1703	1-408-409-00	INDUCTOR 10UH	
L1704	1-408-418-00	INDUCTOR 56UH	
L1705	1-408-418-00	INDUCTOR 56UH	
< TRANSISTOR >			
Q1701	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1702	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1703	8-729-017-05	TRANSISTOR 2SA1837	
Q1704	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1706	8-729-017-06	TRANSISTOR 2SC4793	
Q1708	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1709	8-729-119-78	TRANSISTOR 2SC2785-HFE	
< RESISTOR >			
R1701	1-249-417-11	CARBON 1K	5%
R1702	1-249-417-11	CARBON 1K	5%
R1703	1-249-421-11	CARBON 2.2K	5%
R1704	1-249-415-11	CARBON 680	5%
R1705	1-247-815-91	CARBON 220	5%
R1706	1-247-815-91	CARBON 220	5%
R1708	1-249-412-11	CARBON 390	5%
R1712	1-260-311-11	CARBON 39	5%
R1713	1-249-384-11	CARBON 1.8	5%
R1714	1-249-414-11	CARBON 560	5%
R1715	1-249-432-11	CARBON 18K	5%
R1716	1-249-417-11	CARBON 1K	5%
R1717	1-216-476-11	METAL OXIDE 180	5%
R1718	1-249-432-11	CARBON 18K	5%
R1719	1-249-384-11	CARBON 1.8	5%
R1720	1-249-400-11	CARBON 39	5%
R1721	1-249-414-11	CARBON 560	5%
R1722	1-249-401-11	CARBON 47	5%
R1724	1-249-400-11	CARBON 39	5%

REF.NO.	PART NO.	DESCRIPTION	REMARK
R1725	1-216-451-11	METAL OXIDE 120 5% 2W	F
R1728	1-249-413-11	CARBON 470 5%	1/4W
R1729	1-249-413-11	CARBON 470 5%	1/4W
R1730	1-249-422-11	CARBON 2.7K 5%	1/4W
R1731	1-249-411-11	CARBON 330 5%	1/4W

MISCELLANEOUS

1-406-807-11	COIL, DEGAUSSING
1-452-032-00	MAGNET, DISK; 10MM Ø
1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø
1-453-169-11	TRANSFORMER ASSY. FLYBACK (M-160A2)
1-544-727-11	SPEAKER (7.5x13CM)
1-571-433-21	SWITCH, PUSH (AC POWER)
1-693-338-11	TUNER/VIF (AEP) (KV-29X1A/29X1D/29X1E/29X1K/29X1L/29X1R)
1-693-340-11	TUNER/VIF (FR) (KV-29X1B)
1-693-339-11	TUNER/VIF (UK) (KV-29X1U)
1-751-680-11	CORD, POWER (WITH NOISE FILTER) 2.5A/250V (KV-29X1A/29X1B/29X1D/29X1E)
1-690-270-21	CORD, POWER (WITH CONNECTOR) 2.5A/250V (KV-29X1K/29X1R)
1-776-204-11	CORD, POWER (FILTER) 3A/250V (KV-29X1L/29X1U)
8-451-467-12	DEFLECTION YOKE (Y29GX12B)
8-453-005-11	NECK ASSY, PICTURE TUBE (NA-297-M)
8-733-856-05	PICTURE TUBE (SD-269) (M68LCT60X)
8-733-856-71	ITC

ACCESSORIES AND PACKING MATERIALS

*4-042-128-01	INDIVIDUAL CARTON
*4-042-127-01	CUSHION (LOWER) (ASSY)
*4-042-126-01	CUSHION (UPPER) (ASSY)
4-203-366-41	MANUAL, INSTRUCTION (KV-29X1A) (ITALIAN)
4-203-366-51	MANUAL, INSTRUCTION (KV-29X1B) (FRENCH/GERMAN/ITALIAN/DUTCH)
4-203-366-11	MANUAL, INSTRUCTION (KV-29X1D) (DUTCH/GREEK/ENGLISH/GERMAN/TURKISH)
4-203-372-11	MANUAL, INSTRUCTION (KV-29X1D) (ENGLISH/DUTCH)
4-203-366-71	MANUAL, INSTRUCTION (KV-29X1E) (SPANISH)
4-203-366-81	MANUAL, INSTRUCTION (KV-29X1E) (PORTUGUESE/FINNISH/DANISH/NORWEGIAN/ SWEDISH)
4-203-366-91	MANUAL, INSTRUCTION (KV-29X1K/29X1R) (CZECH/ENGLISH/POLISH/BULGARIAN/ RUSSIAN)
4-203-366-61	MANUAL, INSTRUCTION (KV-29X1L/29X1U) (ENGLISH)
*4-395-957-01	BAG, PROTECTION

REMOTE COMMANDER

1-473-693-11	COMMANDER, STANDARD TYPE (RM-839)
--------------	-----------------------------------